

in accordance with good manufacturing or feeding practice.

§ 582.6787 Sodium pyrophosphate.

(a) *Product.* Sodium pyrophosphate.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.6789 Tetra sodium pyrophosphate.

(a) *Product.* Tetra sodium pyrophosphate.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.6801 Sodium tartrate.

(a) *Product.* Sodium tartrate.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.6804 Sodium potassium tartrate.

(a) *Product.* Sodium potassium tartrate.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.6807 Sodium thiosulfate.

(a) *Product.* Sodium thiosulfate.  
(b) *Tolerance.* 0.1 percent.  
(c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in salt in accordance with good manufacturing or feeding practice.

§ 582.6810 Sodium tripolyphosphate.

(a) *Product.* Sodium tripolyphosphate.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.6851 Stearyl citrate.

(a) *Product.* Stearyl citrate.  
(b) *Tolerance.* This substance is generally recognized as safe for use at a level not exceeding 0.15 percent in accordance with good manufacturing or feeding practice.

Subpart H—Stabilizers

§ 582.7115 Agar-agar.

(a) *Product.* Agar-agar.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.7133 Ammonium alginate.

(a) *Product.* Ammonium alginate.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.7187 Calcium alginate.

(a) *Product.* Calcium alginate.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.7255 Chondrus extract.

(a) *Product.* Chondrus extract (carrageenin).  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.7330 Gum arabic.

(a) *Product.* Acacia (gum arabic).  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.7333 Gum ghatti.

(a) *Product.* Gum ghatti.  
(b) *Conditions of use.* This substance is generally recognized as safe when used

in accordance with good manufacturing or feeding practice.

§ 582.7339 Guar gum.

(a) *Product.* Guar gum.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.7343 Locust bean gum.

(a) *Product.* Locust (carob) bean gum.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.7349 Sterculia gum.

(a) *Product.* Sterculia gum (karaya gum).  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.7351 Gum tragacanth.

(a) *Product.* Tragacanth (gum tragacanth).  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

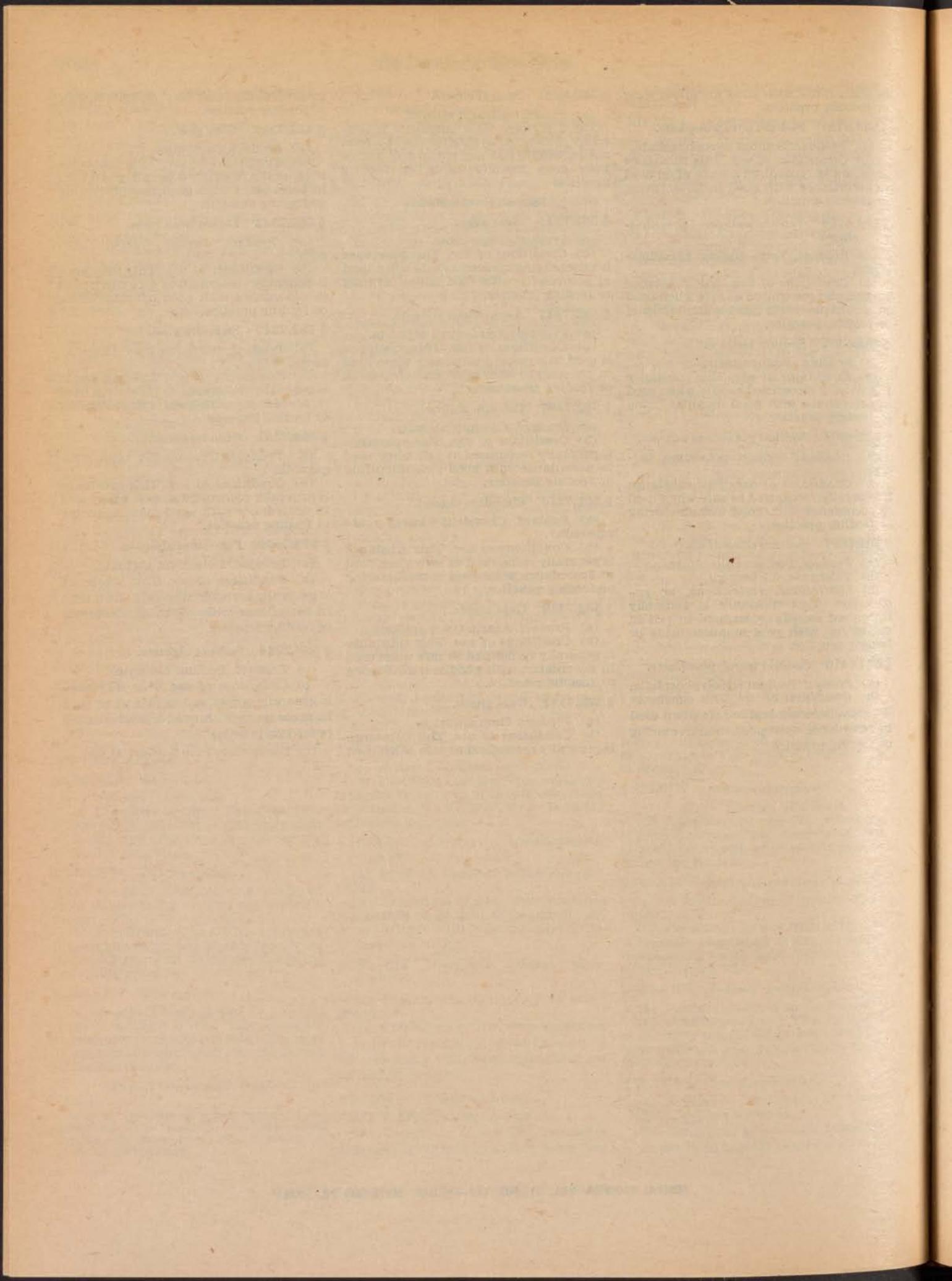
§ 582.7610 Potassium alginate.

(a) *Product.* Potassium alginate.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

§ 582.7724 Sodium alginate.

(a) *Product.* Sodium alginate.  
(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing or feeding practice.

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# **federal register**

FRIDAY, SEPTEMBER 10, 1976



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PART IV:

## **ENVIRONMENTAL PROTECTION AGENCY**

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### **FUEL ECONOMY TESTING, CALCULATION AND EXHAUST EMISSIONS TEST PROCEDURES FOR 1977-1979 MODEL YEAR AUTOMOBILES**

Interim Final Rule Making  
and Proposed Rule Making

## Title 40—Protection of Environment

CHAPTER I—ENVIRONMENTAL  
PROTECTION AGENCY

[FRL 603-5]

PART 86—CONTROL OF AIR POLLUTION  
FROM NEW MOTOR VEHICLE ENGINES:  
CERTIFICATION AND TEST PROCEDURESPART 600—FUEL ECONOMY OF MOTOR  
VEHICLESFuel Economy Testing for 1978 Model Year  
Automobiles and Calculation Procedures  
for 1977 and Subsequent Model Year  
Automobiles; Exhaust Emissions Test  
Procedures for 1978 Model Year Auto-  
mobiles and Light Duty Trucks

## I. SYNOPSIS OF ACTION

On December 22, 1975, the President signed the Energy Policy and Conservation Act, Pub. L. 94-163, 89 Stat. 871. Title III of this Act amends the Motor Vehicle Information and Cost Savings Act, 15 U.S.C. 1901 et seq. (hereinafter referred to as "the Act") for the purpose of regulating the fuel economy of automobiles. This notice relates primarily to Section 501 of the Act relating to definitions and Section 503 which requires the Administrator of EPA to promulgate rules prescribing testing and calculation procedures which will be used for computation of automobile manufacturers' fuel economy averages for 1978 and subsequent model years. These manufacturer's average fuel economy values will be used by the Secretary of Transportation (hereinafter referred to as "the Secretary") to determine compliance with the minimum fuel economy standards prescribed in Section 502 of the Act.

Due to the time constraints and statutory requirements more fully explained below, this notice contains both *interim final* fuel economy testing and calculation procedures for the 1978 model year and proposed procedures for 1979 and subsequent model years.

In addition to the interim final promulgation of the regulations applicable to the 1978 model year, several provisions which were previously proposed for the 1977 model year (41 FR 21002, May 21, 1976) are being published as final for 1977 in this rulemaking, rather than with the regulations requiring the labeling of 1977 and subsequent model year automobiles, as they are essential to the understanding and implementation of this action.

These procedures provide means by which EPA will test automobiles, or cause them to be tested, and calculate an average fuel economy for each manufacturer's product line. EPA will select test vehicles from among all of the various combinations of models, engines, transmissions and drive trains offered for sale by the manufacturers. Since there are many thousands of such combinations, EPA will not be collecting data from every such combination. However, a high percentage of the vehicles in each manufacturer's product

line will be represented by EPA test vehicle selections. In general, the increase in the number of test vehicles over the number now being tested for emissions certification and fuel economy labeling purposes will be quite modest.

In addition to fuel economy testing and calculation procedures, EPA is hereby promulgating and proposing changes to the test procedures used for measuring both exhaust emissions and city fuel economy for 1978 model year automobiles and light duty trucks. These changes are intended to improve the accuracy or representativeness of the tests, but not to affect their stringency.

A detailed explanation of the actions taken herein and the reasons for EPA's promulgation of final regulations for the 1978 model year without the prior issuance of a formal Notice of Proposed Rule Making (NPRM) are set forth below.

## II. 1978 FINAL RULE MAKING

Section 503 of the Act provides that "Testing and calculation procedures applicable to a model year \* \* \* shall be promulgated not less than 12 months prior to the model year to which such procedures apply." Section 502 of the Act provides that fuel economy standards will first go into effect for the 1978 model year. Thus, final regulations are required by the Act to be promulgated no later than twelve months prior to the beginning of the 1978 model year.

The Act provides a definition of model year for individual manufacturers, but not for the industry as a whole. EPA, in consultation and coordination with the Department of Transportation (DOT), has determined that no specific date can be deemed the beginning of a model year for the entire industry. However, for the domestic manufacturers (whose model years traditionally begin earlier than importers') model year production has in the past generally begun in August. Consequently, for the purposes of the statutory deadline in Section 503 of the Act, EPA finds that the 1978 model year will begin no earlier than August, 1977, and that these regulations are required to be promulgated during August, 1976, to the extent that they are applicable to the 1978 model year.

The Energy Policy and Conservation Act was enacted on December 22, 1975, as noted previously. Since then considerable time and intensive interagency effort have been devoted to developing, drafting and reviewing these regulations. During this same period, regulations have been prepared pursuant to Section 506 of the Act for the mandatory fuel economy labeling program. An NPRM was issued for labeling on May 21, 1976, 41 FR 21002. EPA has consulted and coordinated with DOT and has consulted with the Federal Energy Administration and the Federal Trade Commission as required by the Act. The complexity of the issues that had to be resolved and the efforts required to prepare this action and coordinate it with the other interested agencies, together with the deadline in the

Act, have made it impossible to issue rules for 1978 with prior issuance of an NPRM.

Section 553 of Title 5 of the United States Code (pertaining to administrative procedure) provides for the promulgation of regulations without prior issuance of an NPRM, "when the agency for good cause finds (and incorporates the finding and a brief statement of reasons therefor in the rules issued) that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest." For the reasons cited above, EPA finds that issuance of an NPRM and provision of a public comment period for the 1978 model year are impracticable. EPA further finds that failure to promulgate regulations prior to the end of August, 1976 would risk rendering the 1978 fuel economy standards substantially unenforceable (at least for those manufacturers beginning production in August) and that this result would be contrary to the public interest as articulated by the Congress in the Act.

Nevertheless, EPA has made every effort to inform interested parties of its plans and has attempted to receive comments from these parties prior to taking this action. Various drafts have been offered directly to industry members, trade associations, consumer groups and environmental groups and were placed on the public record at EPA. The availability of the drafts was announced at an open meeting held on March 17, 1976 by EPA (pursuant to notice published in the FEDERAL REGISTER, 41 FR 6121, February 11, 1976) and the contents of early drafts were explained by EPA at the meeting. Comments were solicited and received, and numerous consultations have taken place between EPA staff, Department of Transportation staff and various interested parties.

In a series of consultations with interested parties who had reviewed drafts of this action, including manufacturers and the other interested agencies, several significant deficiencies regarding the form and content of the drafts. The direction ultimately taken by EPA in formulating this action, the criteria used for evaluating alternative courses of action available to EPA, and the drafting of the regulatory provisions now contained in this action were all significantly affected by these consultations.

Thus, the procedures set forth for the 1978 model year in Part 86, Subparts A and B are final and the procedures set forth for the 1977 and 1978 model years in Part 600 are final. All of the regulatory provisions contained in this notice which are applicable beginning in 1979 are proposed and will be amended in accordance with the record of this proceeding or as otherwise appropriate. Based on comments received, EPA will endeavor to issue any necessary and appropriate amendments for 1978 which are technical or clerical in nature or which will otherwise not prejudice the interests of affected parties.

## III. EFFECTIVE DATES

The regulatory provisions contained in this action become effective as follows:

(1) The provisions applicable to the 1978 model year in Parts 86 and 600: §§ 86.078-37, 86.113-78, 86.114-78, 86.121-78, 86.123-78, 86.135-78, 86.136-78, 86.137-78, 86.142-78, 86.144-78, 600.101-78 through 600.113-78 and 600.501-78 through 600.512-78 are hereby promulgated on an interim final basis for the 1978 model year;

(2) The provisions listed above in Parts 86 and 600 are hereby proposed for 1979 and subsequent model years.

(3) The provisions in §§ 86.079-2, 86.079-24, 86.113-79, 86.129-79 pertaining to test procedures changes are not effective for the 1978 model years, but are proposed for 1979 and subsequent model years.

(4) Section 600.511-80 is hereby proposed for the 1980 model year.

In addition to the sections enumerated above, some provisions included in this notice for 1977 implementation were originally proposed by EPA in connection with another action required by the Act. On May 21, 1976, EPA issued an NPRM relating to the fuel economy labeling program required by Section 506 of the Act. See, *Fuel Economy Regulations and Test Procedures for 1977 and Later Model Automobiles*, 41 FR 21002 (hereafter referred to as the "labeling regulations.") These labeling regulations contain certain definitions and procedures essential to the calculation of manufacturer's fuel economy averages.

It was originally intended that the labeling regulations would be promulgated before the regulations contained in this notice, but this has become impossible. Therefore, certain provisions contained in the labeling regulations have been included in this notice for 1977 implementation. These include the provisions in Part 600, Subparts A and C [except §§ 600.005, 600.007(e), 600.206 (b) and (c) and 600.207 (c) and (d)]. Comments were solicited and received from manufacturers on certain of these provisions. One comment expressed the concern that the use of EPA approved data might constitute acceptance of the data's validity by the manufacturer and would, as a consequence, jeopardize the right to appeal under § 600.009-77. It is the Agency's opinion that the only position consistent with the preservation of a manufacturer's right to appeal is that manufacturers who contest the fuel economy data to be used on the fuel economy label must label their vehicles with the fuel economy data determined and/or approved by the Administrator and may sell vehicles with this label, but that the use of this fuel economy data does not constitute acceptance of the data's validity or in any way prejudice the manufacturer's right to appeal pursuant to § 600.009-77.

Other comments were received questioning the requirement of section 600.207 that manufacturers must supply test results from vehicles representing the highest production volume configuration

in each base level not otherwise represented by a test vehicle. It was pointed out that the highest selling configuration might not be readily derived from already existing test vehicles through the changing of components or through testing at alternative weights, both options available under the regulations. Consequently, it was suggested that EPA accept data from such a derivative, even though a car so derived from an existing test vehicle might not represent the highest selling configuration in an otherwise unrepresented base level. EPA does not anticipate this to occur except in relatively rare cases. In most instances, untested base levels will be subject to representation by test results from an already tested vehicle which has been simply altered as to some components or which will be tested at multiple inertia weights. Thus the burden imposed on the industry by this section of the regulations is quite small. On the other hand, it is important that base levels be represented by those vehicles which most closely approximate the fuel economy of the base level as a whole, i.e., the highest selling configuration. EPA is compromising by accepting data from certification vehicles to represent base levels even though the certification vehicles may not represent highest sellers. This is being done so that multiple testing within a base level is not required for labeling. However, in cases in which there is no data for a base level, it is only reasonable that EPA require the most representative configuration to be tested, particularly in light of the modest burden this entails.

Comments were also received concerning the degree of decimal precision to be employed in calculating fuel economy values. Some commenters made the erroneous argument that all test results and calculations should be expressed to the highest degree of precision possible since, in a unique situation, two different final fuel economy results could be calculated. What they did not point out, however, is that increasing precision, i.e., the number of decimal places reported, does not necessarily improve accuracy. EPA has determined that a single test on a vehicle provides fuel economy information accurate to the nearest whole MPG.

Since the individual test results are accurate to the nearest whole MPG, accepted data reduction methodology indicates that for the purpose of subsequent calculations, fuel economy test values may be expressed to one more decimal place, i.e., the nearest tenth of a mile per gallon. This rationale and methodology were employed consistently in the proposed regulations which, therefore, do not require revision for the reporting provisions of fuel economy test values.

However, the Agency recognizes that in certain unique circumstances, the practice of rounding off each intermediate calculation to the nearest 0.1 MPG could result in a different and perhaps less accurate final general label value.

Therefore, in order to minimize even the slight possibility of introducing error due to successive round-off, all intermediate calculated values will be rounded to a four decimal place precision (i.e., 0.0001 MPG). The final report values (e.g., general and specific label values) will continue to be rounded off to the nearest whole MPG.

The high level of coordination and cooperation between EPA and interested parties concerning the received comments and all aspects of this action has enabled the promulgation of these provisions for 1977 and subsequent model years along with the sections enumerated earlier.

## IV. OTHER STATUTORY REQUIREMENTS

These regulations fulfill the requirements of the Energy Policy and Conservation Act imposed upon EPA regarding testing and calculation procedures for determining a manufacturer's average fuel economy. Regulations for fuel economy labeling as required by the Act for 1977 and later model years have previously been proposed by EPA, as noted above. Final labeling regulations for the 1976 model year are promulgated on March 19, 1976 (41 FR 11506). Procedures for testing and evaluation of retrofit fuel economy devices under Section 511 of the Act will be issued by EPA by separate notice to follow.

As required by the Act, consultation and coordination between EPA and the Department of Transportation (DOT) have been carried out. In addition, EPA has consulted with the Federal Energy Administration (FEA) and various other interested parties as noted above.

Comments are hereby requested from interested parties on the provisions set forth below. Comments on either the proposed actions for 1979 and subsequent model years or the interim final action for 1978 will be considered. However, amendments to the 1978 interim final regulations will only be made to the following limited extent:

(1) That any such changes are necessary and appropriate, and

(2) That any such changes will prejudice the interests of parties affected thereby, or

(3) That such changes are merely technical or clerical in nature.

## V. TESTING, SAMPLING AND CALCULATION PROCEDURES

The following is a more detailed explanation of the regulatory provisions contained in this action which set forth the means by which EPA will select cars for testing, test the cars or cause them to be tested, and calculate fuel economy averages for each manufacturer of passenger automobiles.

*A. Basic Definitions.* Several basic definitions are employed throughout this preamble and the regulations themselves. EPA believes that an introductory discussion of these terms is therefore in order so that the reader might better understand this action. (Each of these terms is defined formally in the regulations which follow this preamble.)

The Act specifies fuel economy standards for passenger automobiles. A *passenger automobile* is any automobile which is rated at 6000 pounds gross vehicle weight or less and which the Secretary of DOT determines is manufactured primarily for use in the transportation of not more than 10 individuals. (Under the provisions of Section 501 of the Act, the Secretary of Transportation can expand the definition to include heavier vehicles.) All passenger automobiles so designated by the Secretary will be included in the calculation of each manufacturer's fuel economy average.

For fuel economy purposes, the first major subdivision of a manufacturer's product line is *car line*. A *car line* denotes a group of vehicles within a make or car division which has a degree of commonality in construction. Car line does not consider any level of decor or opulence and is generally not distinguished by characteristics such as roof line, number of doors, seats or windows, although station wagons are considered distinct car lines from sedans. For example, in the 1976 EPA/FEA Gas Mileage Guide for New Car Buyers, Buick, a division of General Motors, had listed nine car lines: Electra, Skylark, Opel, Century/Regal, Century Wagon, LeSabre, Estate Wagon, Skyhawk and Riviera.

Within any car line, a number of model types may exist. *Model type* means a unique combination of car line, basic engine, and transmission class. This definition of model type incorporates two key parameters which most affect fuel economy and which are capable of being understood and used by the average consumer. Thus, a major function of model type is to provide a meaningful concept for publishing fuel economy information (since model type corresponds to nameplates known to the general public) as well as being used to calculate manufacturers' average fuel economy.

An additional system of classification is used for subdividing a manufacturer's product line into smaller groups for determining test requirements, both for the purpose of calculating manufacturers' averages and for calculating fuel economy label values. This alternative system classifies each manufacturer's product line into base levels. A *base level* is a unique combination of inertia weight class, basic engine and transmission class. (Note that base level is nearly the same as model type except that weight is substituted for car line.) The fuel economy for each model type is simply the sales-weighted, harmonic average<sup>1</sup> of the fuel economy of each base level comprising the model type. The significance of the concept of base level is that the vehicle characteristics which define a base level are those that most profoundly affect fuel economy. At least one vehicle from each base level produced by the manufacturer must be tested in

order to calculate the fuel economy results for a manufacturer. Again using the Buick example, a typical base level would be a 3500 pound vehicle, 231 cubic inch, 6 cylinder engine with 2 barrel carburetor, catalyst, and manual transmission. *Basic engine* distinguishes engines of a particular displacement, number of cylinders, fuel system, and catalyst usage. *Transmission class* is the basic type of transmission, i.e., manual, automatic, or semiautomatic.

An additional level of delineation is necessary to identify individual test vehicles. Base levels are subdivided into vehicle configurations. A *vehicle configuration* is defined as a unique combination of inertia weight class, basic engine, and transmission class (all of which determine a base level) plus engine code, transmission configuration, and axle ratio. *Engine code* goes beyond the definition of basic engine by isolating different variations of carburetor, distributor, and other key engine and emission control system components. *Transmission configuration* considers more than just manual or automatic and distinguishes transmissions by their number of forward gears, e.g., three-speed manual and four-speed manual. An example of a vehicle configuration is 3500 pound, 231 cubic inch, 6 cylinder, 2 barrel carburetor engine of engine code 4, with catalyst, 4-speed manual transmission and 2.56 axle ratio.

As more fully explained below, the individual vehicles which will be tested pursuant to these rules will be specified as *vehicle configurations*. Data from the vehicle configurations tested within a *base level* will be combined (weighted as to production projections or actual production figures) to arrive at a fuel economy value for each base level. These base level values will in turn be combined to yield fuel economy values for each model type. Pursuant to the Act, each manufacturer's fuel economy average will be the harmonic, production-weighted average fuel economy of that manufacturer's model types.

**B. Calculation of Average Fuel Economy.** Beginning with the 1978 model year, the average fuel economy of passenger automobiles produced by each manufacturer is required to be no less than 18.0 miles per gallon (MPG), with the standard gradually increasing to 27.5 MPG in 1985. (The Secretary has authority to adjust these standards somewhat under circumstances specified in the Act.) Failure to meet the standard applicable in any given year subjects a manufacturer to a civil penalty. However, this penalty can be offset by a credit if the manufacturer exceeded the applicable standard in the year previous to the violation or if he exceeds the standard in the year following the violation.

The penalties provided for in the Act are quite substantial—five dollars for each passenger automobile produced for each 0.1 MPG that the applicable standard exceeds the manufacturer's average fuel economy for that year. Credits are assessed by a similar formula at the same rates. For a manufacturer who failed to

meet the standard by a mere one tenth of a mile per gallon in a year in which he produced five million passenger automobiles, the penalty specified by the Act would be 25 million dollars. (However, the penalties accruing to the nation as a result of this failure would amount to 23.2 million fewer gallons of fuel available for consumption each year and an additional annual cost to the American public of \$15,000,000<sup>2</sup>.)

Due to the potential for such large penalties and credits based on shifts of tenths of an MPG, and due to the potentially large differences in aggregate fuel consumption that small changes in average fuel economies may represent, it is in the interest of both the government and the industry that manufacturers' calculated fuel economy averages be as truly representative of manufacturers' product line fuel economies as practicable. An inadequate testing and calculation plan could result in the imposition of an undue financial burden on a manufacturer in the form of large, unwarranted penalties, or costly and unwarranted vehicle modifications, or production shifts if the calculated value were too low. Alternatively an incorrectly high calculated average could deprive the nation of the total fuel savings envisioned by the Act and could inappropriately give the manufacturer a credit.

EPA's role in this program is to measure the fuel economy of manufacturers' passenger automobiles, to calculate manufacturer's fuel economy averages and to transmit these data and calculations to DOT so that the Secretary can make determinations of compliance and assess penalties as required.

The calculated manufacturers' average fuel economies are a function of three factors—production figures, the mathematical methodology used and the vehicle test data included in the calculation. Production data are discussed at more length below. The mathematical methodology is not an issue since the Act specifies that the average will be the harmonic, production-weighted average of the model type fuel economies determined for each manufacturer. The last of these factors, the vehicle test data to be included, is not so precisely specified in the Act.

Although the Act does not specify which cars EPA must test for the purposes of calculating manufacturers' averages under Section 503, it does provide some guidance. EPA is directed to conduct fuel economy tests for the purposes of this section in conjunction with emissions tests carried out under Section 206 of the Clean Air Act, 42 U.S.C. 1857 f-5, to the extent practicable. Since it is essential to know that fuel economy data is being derived from a vehicle that also meets the emission standards as required by the Clean Air Act, and since the emissions test is identical to the urban fuel economy test, and since urban fuel

<sup>1</sup>The harmonic average fuel economy is computed by taking the inverse of average fuel consumption where consumption is expressed as gallons per mile.

<sup>2</sup>This assumes five million cars produced, a standard of 18.0 MPG, average annual mileage accumulation of 15,000 miles and an average fuel cost of \$0.65 per gallon.

economy and emissions measurements are made simultaneously, Congress' instructions in this regard are well taken. However, Congress also provided the Administrator of EPA with general authority to issue regulations prescribing the means by which fuel economy values will be measured and averages calculated. EPA has found it necessary to use this general authority to augment the fleet of cars tested for emissions purposes in order to have tested a fleet which will be representative of manufacturers' product lines for fuel economy purposes as well as emissions.

For emissions purposes, EPA groups manufacturers' various designs by those characteristics most significant to emissions performance, rather than fuel economy. EPA then selects individual designs for testing according to the requirements of the Clean Air Act. Since the emissions standards only require EPA to make a pass/fail determination, rather than to quantify the degree of passage or failure, and since every design tested must meet the emissions standards in order to be sold, EPA selects many designs for testing which are judged to be the least likely within an emissions category or grouping of designs (known as "engine families") to pass the emissions test.

For the purpose of calculating manufacturer's fuel economy averages, EPA's testing needs are quite different from those under the Clean Air Act. In the first instance, EPA must group manufacturers' designs by those characteristics which most affect fuel economy. Since some vehicle characteristics affect fuel economy more than emissions, and vice versa, these groupings are not always consistent with engine families. Moreover, under Section 503 of the Act, EPA must quantify the degree of passage or failure for a manufacturer's entire line; how an individual car performs is not at issue. Thus, an emissions test fleet containing a disproportionate number of cars judged to be the least likely to meet emissions standards (which coincidentally are likely to have somewhat low fuel economies relative to many cars with higher sales volumes) is not representative of a manufacturer's overall production for fuel economy purposes. For these reasons, EPA has found it necessary to augment the fleet of cars tested for emissions in order to provide a data base from which fuel economy averages can be calculated with enough accuracy to enable the Administrator to have a reasonable basis for the values calculated and to enable the Secretary to bring successful enforcement of actions.

The emissions test fleet is already augmented by the addition of cars used for fuel economy labeling purposes. This practice has been proposed to continue under Section 506 of the Act in the labeling program for 1977 and later years. (See, 41 FR 21002, May 21, 1976.) However, the addition of these cars alone is not adequate for the purposes of Section 503 of the Act since some configurations with high production volumes would still not be tested. Under the labeling pro-

gram, fuel economy estimates are rounded to the nearest whole MPG. This provides a means by which consumers can compare the relative fuel economy of new cars, a purpose for which greater precision is not required. However, the data used to generate these whole MPG values cannot provide the precision needed to make Section 503 determinations (with their potentially enormous consequences) and consequently would not provide a reasonable basis for assessing penalties.

#### VI. ALTERNATIVE APPROACHES TO THE SELECTION OF FUEL ECONOMY TEST VEHICLES

Several alternative approaches to the selection of fuel economy test vehicles (hereinafter referred to as "fuel economy data vehicles") were examined by EPA in close coordination and consultation with DOT. EPA employed the following criteria in selecting among the various alternative approaches to picking fuel economy data vehicles:

(1) The degree to which the resulting fleet of test vehicles would yield a *calculated average representative* of the manufacturer's actual fleet average;<sup>3</sup>

(2) The enforceability of a penalty assessed on the basis of a manufacturer's calculated value being below the standard;

(3) The degree to which the vehicle selection scheme would permit a manufacturer to respond with mid-year product design or production mix changes to remedy a potential non-compliance situation; and

(4) The resources required by both industry and EPA to conduct the necessary testing (for which the public ultimately pays).

All of the alternatives considered for augmenting the emissions and labeling test fleets fall into one of two categories. Either they amount to the accumulation of data intended to provide a statistically valid sampling of the manufacturer's vehicles, or they provide a representative, rather than statistical, sample of each manufacturer's line. However, just as an approach only employing emissions program data could not seriously be considered for calculating manufacturer's averages, a pure statistical sampling approach was quickly dismissed as a possibility. EPA and DOT did, however, consider in detail several alternative means of sampling which were variations on either the representative sampling scheme (herein adopted) or which were hybrids combining aspects of both representative and statistical sampling. These two basic alternatives, the adopted approach and the hybrid, are discussed below. Alternative 1, the hybrid "Statistical Sampling Approach," specifies the minimum number of vehicles which would have to be tested to determine an average fuel economy for each manufacturer

<sup>3</sup> A manufacturer's actual fleet average is the average fuel economy that would be measured using the prescribed test procedures if every car produced were actually tested.

at a predetermined level of accuracy and statistical confidence. Alternative 2, the "Representative Approach" specifies a relatively low level of additional testing, over and above emissions and fuel economy labeling testing, and provides manufacturers with secure base fuel economy values, i.e., the measured fuel economy of each base level does not change unless the production mix changes or the manufacturer elects to make mid-year design changes.

#### STATISTICAL SAMPLING APPROACH

In this approach manufacturers must test the minimum number of vehicles required to calculate average fuel economy values to a predetermined level of confidence. This minimum number is a function of:

(1) Base level variability,  
(2) Minimum incremental accuracy required,

(3) Manufacturer's calculated average fuel economy,

(4) Desired confidence level about the average,

(5) The level of the standard.

EPA and DOT examined several types of statistical sampling approaches against the criteria enumerated above. All of these sampling plans suffered from the same problems, i.e., if enough cars were to be tested to ensure the enforceability of the standard, each manufacturer would have to test a great many cars and the manufacturer would not know his precise fuel economy until it was too late to make mid-year changes which would either bring him into compliance or at least reduce the degree by which he failed to meet the standard. Under the best of these variants of statistical sampling, by 1985, most manufacturers would have to test thousands of cars annually and for the industry as a whole, the test burden would be tens, if not hundreds, of thousands of cars (even though only manufacturers whose average was close to, or below, the standard would have to conduct a full test program). The cost of such an extensive program of testing, exclusive of the costs of new test facilities which would have to be built, would be in the hundreds of millions of dollars.

(A more detailed discussion of the statistical sampling schemes analyzed by EPA and DOT is available on the public record of this rule making proceeding.)

EPA has rejected the use of a statistical sampling plan for the following reasons:

(1) The number of tests required to be conducted would be much more costly than is justified, if not altogether prohibitive.

(2) The value of a statistical sampling plan is primarily that it is possible to preselect a test fleet which characterizes the fleet produced by a manufacturer and measure the fuel economy of that fleet within specified confidence intervals. However, in order to keep the level of testing down to even the infeasible numbers referred to above, it is necessary to assume a degree of variability within base levels which cannot be verified. (It

would take more testing to prove this variability for each base level than to calculate the average itself.) Thus a manufacturer could challenge a calculated average on the grounds that EPA's assumed variability was lower than the manufacturer's actual variability and that EPA consequently had not caused enough cars to be tested.

(3) Due to the large number of cars that would have to be tested, manufacturers could not conduct all of the requisite tests prior to, or early in, the model year. Testing would have to be distributed throughout the model year and might have to extend beyond the end of production for the model year. Consequently, manufacturers would not know if they had met the standard applicable to a given year until it was too late to change the mix of designs in their product lines (to increase the number of cars of configurations with good fuel economy they were producing) or to effect design changes to improve fuel economy. Since the purpose of the Act is to reduce fuel consumption and not to collect penalties, it is essential that manufacturers' opportunities to comply not be curtailed in this way.

Unlike statistical approaches to sampling, representative sampling plans rely on the testing of enough cars within each base level so that the fuel economy of production vehicles within each base level is adequately represented by the vehicles tested. An additional feature of the particular representative sampling plan agreed to in the course of consultation and coordination between EPA and DOT is that fuel economy values for base levels would not change during a model year unless the proportions of the different designs in the product line changed or the manufacturer elected to make changes in the designs themselves (the latter known as "running changes").

Under the adopted representative sampling plan, EPA would make a preliminary calculation of each manufacturer's average fuel economy soon after the beginning of the model year. This calculation would employ five sources of data (weighted according to their contribution to total projected production) as follows:

- (1) Original emission certification test vehicles ("emission data vehicles");
- (2) Vehicles required to be tested for fuel economy labeling;
- (3) Vehicles representing running changes made early in the year which are required to be tested for emissions purposes;
- (4) Vehicles representing high production volume configurations in significant base levels;
- (5) Vehicles submitted voluntarily by the manufacturer.

After this preliminary calculation is made, manufacturers will have the option of petitioning the Administrator to be exempted from providing additional test data representing running changes implemented after the preliminary calculation is made. The exemption would be granted if EPA determined that the pre-

liminary average was sufficiently above the standard so that, in spite of any reasonably foreseeable changes in the production mix and the potential change in the average due to running changes, there would be little likelihood that the manufacturer would be below the applicable standard in the year for which the calculation was being made and so that there would be little likelihood that the manufacturer would need a credit in the following year. (As noted earlier, the Act contains a provision offsetting penalties for failure to meet applicable standards if the standards for the prior year of failure or following the year of failure were exceeded.)

EPA will establish criteria for the granting of such exemptions based on the number of cars tested prior to the calculation of the preliminary average, the applicable standard, the potential for change in the average due to running changes, and other factors as appropriate. Comments are requested on the criteria that should be used for making these determinations and the manner of their application.

EPA at one time considered granting such petitions for exemption only if, based on the preliminary calculation of a manufacturer's average, the manufacturer was not only in no danger of failing to meet the standard in a given year (so that no penalty would be assessed), but if the manufacturer was also already clearly meeting the standard for the following year (so that no credit would be necessary).

Thus, it is not EPA's intention to require unnecessary testing in situations in which the preliminary data is adequate. If a manufacturer is in no danger of failing to meet a standard or of needing a credit to offset a penalty which might be assessed in the future, irrespective of production mix or running changes, no useful purpose is served by requiring the manufacturer to incur the costs of a full test program. However, if there may either be a penalty or credit based on a test program, the preliminary calculation would be inadequate as a manufacturer could artificially inflate a credit or reduce the size of a penalty by manipulating his production projections or his running changes.

EPA now believes, and DOT concurs, that these interests are adequately addressed if exemptions from full testing are granted under either of the following conditions:

(1) Based on the preliminary calculation of a manufacturer's average (with the application of the types of criteria noted above), there is a high degree of assurance that the manufacturer is meeting, and will continue to meet, the standards both for a given year and the following year; or

(2) Based on the preliminary calculation as above, there is a high degree of assurance that the manufacturer is meeting and will continue to meet the standard only for a given year (but may need a credit in the following year), if the manufacturer waives any credit that might be based on the preliminary calculation.

If a manufacturer fails to obtain an exemption, the agency would require that each running change implemented during the model year be evaluated for possible effects on the fuel economy of "significant" base levels.\* EPA is requiring that data for the configuration representing the most production units that are affected by the running change and that are also within the top 90 percent (based on proportion of production) of a significant base level be submitted. These data could be the results of testing or derived by an analytical technique such as an approved regression analysis.

Based upon data available from the 1976 model year certification and labeling programs, an average of less than 5 additional vehicles per manufacturer would be required to represent 90 percent of the projected production of the significant base levels for the four large domestic manufacturers. However, insufficient data exist to accurately assess the additional test burden resulting from evaluating mid-year design changes, although it is possible to predict that this testing will be well within the limits of feasibility. Furthermore, the number of running change tests required will be ultimately within the control of the manufacturers since running changes themselves are not required by any regulations.

The required resource levels for this approach are reasonable and consistent with apparent Congressional intent. This approach should be at least as enforceable as any feasible statistical approach since any manufacturer who does not believe that the testing required by EPA provides a reasonable basis for making compliance determinations may submit additional data as provided in the Act.

Not only is the direct economic cost of this approach less than that of the statistical approach as a result of a lower test volume, but the lower number of required tests will provide the manufacturers with the opportunity to make mid-year adjustments that might be necessary to meet the fuel economy standard. A requirement for as large a number of tests as required under the statistical approach would dictate the distribution of mandated testing over the entire model year due to limited test facilities. Under the statistical approach the manufacturer would be placed in the untenable position of not knowing the fuel economy values used in calculating his average until half-way or even later into the model year. If then he found out that he was in jeopardy of failing the standard, little time would be left to correct the situation except through drastic production mix shifts. By providing this fuel economy data information early in the model year, the representative approach minimizes these problems and gives manufacturers more flexibility and opportunity to meet standards by either shifting model mix or by making mid-year design modifications.

\*A significant base level is any that represents 1 percent or more of a manufacturer's production.

The selected approach has an additional advantage over the statistical approach in that it makes optimum use of certification and labeling test volume. All certification and fuel economy labeling data are used to meet test data requirements which might have to be satisfied by different vehicles under other sampling plans. Furthermore, by permitting exemptions to running change testing, the number of manufacturers involved in higher levels of testing will be greatly reduced.

Having examined these alternative methods of sampling manufacturers' product lines, EPA found, as indicated by the preceding discussion, that only the Representative Approach is feasible and meets the criteria set forth previously to an adequate degree. Consequently, this is the approach being promulgated for the 1978 model year and proposed for subsequent model years. Nevertheless, EPA is hereby specifically requesting comments on various aspects of this method of sampling manufacturers' product lines, in addition to general comments on this and other issues involved in this action. Manufacturers are requested to comment on the fuel economy test variability they would anticipate seeing within each of their respective base levels and the components and sources of that variability. Manufacturers are further requested to comment on the testing and cost implications of the recommended plan, e.g., the expected number of required test vehicles and vehicle tests that will have to be provided as a result of this action, the availability of sufficient test capacity, and the costs of complying with these regulations itemized as to such individual costs as vehicle procurement, fuel economy testing and mileage accumulation. Finally, comments are most particularly requested on the enforceability of the standards given a compliance testing program such as that adopted herein, i.e., the acceptability of fuel economy averages derived from such a sampling plan as forming the bases for the assessment of penalties and credits.

#### VII. 40 CFR PART 86 PROCEDURE CHANGES

**A. 1978 Model Year Test Procedure Changes.** Effective for the 1978 model year and proposed for 1979 and later model years, the following six amendments are considered relatively straightforward and will provide a more accurate measurement of the fuel economy and exhaust emission levels of the test vehicles. EPA contemplates no adjustment of the emission or fuel economy standards due to these changes as the changes only serve to improve the accuracy of the test measurement or to make the test fuel more representative of commercially available fuel. These changes will have insignificant testing cost impacts.

(1) **Quarterly production reports.**—The previous requirement for reporting vehicle production on a quarterly basis has yielded information which has not been sufficiently definitive to assess what

vehicle configurations are being produced. The previously required level of definition did not provide production information based on vehicle parameters such as axle ratio, engine and emission control system calibrations, or vehicle car line. Furthermore, the quarterly production report can provide, with some modification, vehicle production information necessary to provide support to emissions and fuel economy related programs and, for the 1978 model year, information required to calculate the manufacturers' average fuel economy values.

The modifications are intended to make the quarterly production reports more useful in supporting both emissions and fuel economy programs (and are essential for calculating manufacturers' averages) with only a single reporting requirement on the manufacturer.

(2) **Measure the actual distance traveled.**—The actual distance traveled by a vehicle during a test will be measured and used in the calculation of grams/mile and miles/gallon values. Currently, the nominal test cycle distances of 7.5 miles for the city cycle and 10.2 miles for the highway cycle are used. The proposed change is intended to accurately weigh the emission levels and fuel usage by the actual miles traveled rather than by an arbitrarily fixed distance. This change in no way affects the actual performance of the vehicle, but merely measures this performance more accurately.

(3) **Increase the Number of Calibration Gases.** The number of HC and NOx calibration gases is increased from 2 to 6. This change will improve the confidence in the accuracy with which the progressively lower levels of HC and NOx are measured.

(4) **Change the Diesel Fuel Specification.** The Diesel fuel specification is being changed to drop the allowable use of No. 1 Diesel fuel which is not commonly available for light duty automotive use. Only No. 2 Diesel fuel will be allowed. No. 2 Diesel fuel is commonly available, has generally been used in past certification programs, and is specified by manufacturers for customer use in all currently marketed Diesels for light duty automotive applications.

(5) **Specify Separate Procedures for Cold and Hot Start Failures.** Current regulations only specify a single test procedure to be followed should a vehicle fail to easily start during the test. The 1975 Federal Test Procedure includes both a cold start and a hot start. The proposed test procedure change will delineate separate procedures to follow should a vehicle fail to cold start or hot start. The proposed change will apply the present procedure to cold start failure only. A new hot start procedure will be incorporated into the regulations to cover those very infrequent hot start failures. These changes will serve to provide further delineation of procedures which have been followed by EPA and which have commonly been accepted by the automotive industry.

Comments were received from manufacturers regarding ambiguities in the wording used in earlier drafts of this

action relating to the implementation of this change in test procedure. EPA has responded to these concerns and the current language reflects these changes.

(6) **Allow Use of Overdrive.** The current regulations require that vehicles equipped with overdrive or free-wheeling units be used according to manufacturer-out of operation. The test procedure regulations are hereby being amended so that they no longer disallow the use of overdrive units, but do require that these units be used according to manufacturers' recommendations. In addition, free-wheeling units are no longer required to be locked out of operation. Thus, the regulations will now recognize and give the same credit to the fuel economy benefits of an overdrive unit as is realized in actual use.

**B. 1979 and Later Model Year Proposed Changes.** Beginning with the 1979 model year (to allow comment and sufficient lead time for implementation), several major test procedure changes are proposed without implementation in 1978. Each of these test procedure changes will provide a more accurate simulation of what the vehicle "sees" during actual on-the-road operation. Although these test procedure changes could be expected to affect exhaust emissions and fuel economy on a specific vehicle, no directional change in either average exhaust emissions or fuel economy is expected when looking at the entire population of vehicles. For example, if all the 1976 model year vehicles currently being sold were tested under both the existing and the proposed test procedures, the average exhaust emission levels and fuel economy would be for all practical purposes the same. Since no necessary or intended directional shift in either exhaust emission or fuel economy will result from these test procedure changes, it will not be necessary to apply a correction factor to the fuel economy test values in order to yield comparable results to the 1975 test procedures as required by the Act.

(1) **Use of More Accurate Road Load Simulation.** Another change proposed for the 1979 model year is a revised method for setting the dynamometer power absorber. The dynamometer power absorber setting simulates the vehicle road load. This is accomplished by setting the dynamometer power absorber to a value that reflects all major components of total road load of the vehicle; vehicle weight, aerodynamic drag of the vehicle and losses resulting from free-rolling friction of the non-driving tires and wheels. When the vehicle is operated on a dynamometer, the driving tires dissipate more power on the curved roll surface(s) than is dissipated on a flat road surface. This additional power dissipation must be subtracted from vehicle road load to obtain the appropriate dynamometer power absorber setting.

Where twin-roll dynamometers are in use, the additional power dissipated by the driving tires, over and above normal power dissipation on a flat road surface, is assumed to adequately compensate for the power dissipation attributed to non-driving tires and wheels. Therefore, in

calculating the total vehicle road load, the additional power dissipation caused by the curved roll surfaces need not be subtracted. With this assumption the dynamometer power absorber setting represents the aerodynamic drag of the vehicle.

The aerodynamic drag of a vehicle is a function of the vehicle frontal area, body shape, protuberances and other aerodynamic factors. Since the vehicle weight and external size tend to be related, the weight can be used as an indirect predictor of vehicle aerodynamic drag. Vehicle weight is currently used to predict the dynamometer power absorber setting. The functional form of the prediction system is:

$$P = aW^2 + bW + c$$

Where:

P = Dynamometer power absorber setting

W = Vehicle weight

a, b and c are predetermined constants

A relationship such as this, based upon weight only, is satisfactory only so long as most vehicles have about the same weight-to-size correlation that existed when the prediction system was developed. However, the recent emphasis on fuel efficient vehicles has resulted in criticism of this simplified method for selecting the proper dynamometer setting since the manufacturer does not receive credit for aerodynamic improvements. Automobile manufacturers have commented in the past that the flat surface rolling resistance advantage of radial tires is not reflected on the dynamometer. Consequently, criticism has been received that the current dynamometer adjustment procedure does not reflect the fuel economy advantages of radial tires. It should be parenthetically noted that the manufacturers currently have the option of measuring actual road load power and requesting that this empirical value be used to set the dynamometer.

In response to these criticisms and in recognition of the fact that the original data base is already six years old, the EPA conducted a track test program using approximately 70 light-duty vehicles and 15 light-duty trucks. The trucks were tested with various payloads, resulting in a total of approximately 60 light-duty truck tests.

As a result of this test program a system to predict the dynamometer power absorber setting as a function of vehicle weight, frontal area, protuberances and tire type was developed and is being proposed. An equation is proposed for both twin roll dynamometers (with nominal roll diameters of 8-9") and single roll dynamometers (with nominal roll diameters of 48").

Comments on, and data relating to, this proposed approach for determining dynamometer power absorber settings are requested. The data most needed are those relating to tire-road and tire-roll effects. Information and test data are also requested regarding the simulation of air conditioner operation.

(2) *Reduction in Inertia Weight Test Increments.* The second change proposed for the 1979 model year is to reduce the

range of inertia weight test intervals. Currently, the inertia intervals are quite broad, 250 pound intervals for inertia settings up through 2750 pounds, and 500 pound intervals for settings from 3000 to 5500 pounds. Manufacturers argue that even relatively significant weight reductions may go unrewarded, particularly if a vehicle is near the upper end of a class. They also contend that little incentive exists to reduce vehicle weight if they do not receive credit for their action in terms of the testing procedure. On the other hand, relatively minor weight reductions would receive substantial reward if the vehicle were just above the lower end of the class. Manufacturers have every incentive to make these minor changes. Reducing the intervals by half, from 250 to 125 pounds and 500 to 250 pounds would provide incentive for the manufacturers to engage in vehicle weight reduction programs that would result in real fuel economy benefits. This change would also reduce weight-related test errors to 0.4 MPG or less.

Reducing the inertia weight test increments would have a significant impact upon test facilities. Test dynamometers would require physical modifications to allow implementation of smaller inertia weight intervals. This change is proposed for 1979 rather than 1978 because it is doubtful that a sufficient number of dynamometers used by EPA or manufacturers could be modified in time for 1978 model year testing.

One other aspect of this change merits consideration. Currently vehicles are selected to represent the dynamometer inertia intervals. Increasing the number of inertia intervals need not require a corresponding increase in the number of vehicles chosen as test vehicles, but this increase would result if the selection criterion were not revised appropriately. Without revision, the number of test vehicles required may nearly double. The current method of calculating fuel economy values, manufacturers' average values and label values, requires at least one vehicle per inertia weight class. Consideration will be given to revising this such that the number of test vehicles does not increase appreciably and such large increases are not contemplated by these proposals. Interested parties, particularly manufacturers, are invited to comment on this aspect of reducing the inertia weight test increments.

As in the first change, since there is no directional trend to the changes (any given vehicle is just as likely to go into a "heavier" new class as it is likely to go into a "lighter" class) there is no need to adjust the emissions or fuel economy baselevels. This change only serves to more accurately represent the real emission and fuel economy results of the vehicle.

(3) *Definition of option and model, and revision of optional equipment usage.*—The fourth minor change proposed for the 1979 model year includes revisions to emission certification procedures. The current emission regulations lack definitions for model and for option, although both terms are used in

the text of the regulations. The lack of a definition for these terms has led to disagreement between EPA and the manufacturers over the interpretation of the certification requirements. One specific area where controversy exists is that of the manufacturer's product line description. The variety of interpretation of the terms "model" and "option" has led to a lack of consistency in manufacturers' applications for certification. This lack of specificity when referring to "options" may also affect fuel economy values. The current procedure requires that test vehicles includes equipment if 33 percent or more of the vehicles in an engine family are projected to be sold with that equipment. This causes many vehicles to be tested at unrepresentative road load and inertia weights, which can result in somewhat unrepresentative fuel economy values.

The definitions proposed for model and option, and the additional related definitions, are intended to clarify the certification requirements and to bring about consistency in the related programs.

The previous certification requirements concerning optional equipment usage as they impacted test vehicle equipment, vehicle inertia weight class and road load air conditioning factor were based on the usage of optional equipment on greater than 33 percent of the engine family. This provision was initially instituted in the 1972 model year regulations as an attempt to more accurately characterize the manufacturer's product lines during testing, on the basis of typical in-use vehicles.

Recently, the engine family basis for definitions relating to optional equipment usage has proven inadequate in making certification vehicles represent in-use vehicles. Some vehicles have been required to be equipped in a manner not typical of in-use vehicles of the same configuration (but typical of vehicles within the engine family).

The proposal to revise the basis for decisions related to optional equipment usage from "engine family" to "car line" should improve the accuracy of the representation of the manufacturers' product lines by their respective test vehicles without having any directional effect on emission or fuel economy results.

(4) *Revise the Fuel Octane Requirements.*—The fuel octane requirements for mileage accumulation and emission testing are being changed to allow use of a lower octane fuel. This change will bring the allowable fuel octane requirements more in line with the fuel commercially available to the consumer and with the minimum octane levels recommended to the purchaser. Thus, this change will allow a more representative assessment of in-use vehicle performance.

#### VIII. DETERMINATION OF DOMESTIC PRODUCTION

Under certain circumstances, Section 503 of the Act provides that separate fuel economy averages will be calculated for manufacturers' domestic and imported vehicles in cases wherein a manufactur-

er's product line includes both. This section further provides that the Administrator of EPA may prescribe rules for determining how passenger automobiles will be classified as either foreign or domestic. EPA has found it necessary to define a procedure by which this determination will be made so that all manufacturers will be treated in the same manner and so that manufacturers may plan for future model years in which this determination may become critical to the question of whether or not their domestic production meets the fuel economy standards.

#### IX. REQUEST FOR COMMENTS

Manufacturers and other interested parties may participate in this rulemaking by submitting comments (in quadruplicate) to the Administrator, Environmental Protection Agency, Attention: Office of Mobile Source Air Pollution Control, 401 M Street, SW., Washington, D.C. 20460. All relevant material received on or before December 9, 1976, will be considered.

A copy of all public comments will be available for inspection and copying at the U.S. Environmental Protection Agency, Public Information Reference Unit, Room 2922 (EPA Library), 401 M Street, SW., Washington, D.C. 20460. As provided in 40 CFR Part 2, a reasonable fee may be charged for copying services.

In accordance with Executive Order 11821 a review of this action was undertaken to determine whether it met the criteria for a "major action" requiring preparation of an Inflationary Impact Statement. The review indicated that the costs and economic impacts of this action are far less than a "major" action and that therefore no IIS is required.

No significant environmental impacts are associated with this action.

#### X. TITLE AND STATUTORY AUTHORITY

The provisions of this notice pertaining to 40 CFR Part 600 are issued under the authority of Title V of the Motor Vehicle Information and Cost Savings Act, 15 U.S.C. 1901 et seq., as amended by Title III of the Energy Policy and Conservation Act, Pub. L. 94-163, Stat. 901.

The provisions of Part 86 are issued under the authority of sections 202, 206, 207, 208, and 301(a) of the Clean Air Act, as amended (42 U.S.C. 1857f-1, 1857f-5, 1857f-5a, 1857f-6, 1857g(a)).

Parts 86 and 600 of Chapter I, Title 40 of the Code of Federal Regulations are amended, or proposed to be amended as noted above, as follows, effective immediately and applicable as provided herein.

Dated: August 30, 1976

JOHN QUARLES,  
Acting Administrator.

Part 86 of Chapter I, Title 40 of the Code of Federal Regulations is amended in Subparts A and B as follows:

1. It is proposed to add § 86.079-2 as follows:

#### § 86.079-2 Definitions.

The following definitions apply beginning with the 1979 model year. Section 86.078-2 remains effective.

"Body Style" means a level of commonality in vehicle configuration as defined by number of doors and roof treatment (e.g., Sedan, Convertible, Fastback, Hatchback). Station Wagons and light trucks are identified as separate car lines.

"Drivetrain Configuration" means a unique combination of engine code, transmission configuration and axle ratio.

"Frontal Area" means the area enclosed by the geometrical projection of the vehicle, including tires, onto a plane perpendicular to the longitudinal axis of the vehicle.

"Model" means a specific combination of carline, body style, and drivetrain configuration.

"Option" means any available equipment or feature not standard equipment on a model.

"Public Introduction Date" means that date on which the manufacturer has released for retail sale vehicle configurations whose total projected model year production is estimated to be twenty-five percent or more of his total model year projected production volume.

"Standard Equipment" means those features or equipment which are marketed on a vehicle over which the purchaser can exercise no choice.

2. It is proposed to add a new § 86.079-24 as follows:

#### § 86.079-24 Test vehicles and engines.

(a) through (f) inclusive (see paragraphs (a) through (f) of § 86.078-24).

(g) (1) This paragraph applies to light duty vehicles and light duty trucks.

(2) Where it is expected that more than 33 percent of a car line, within an engine-system combination, may be equipped with an item (whether that item is standard equipment or an option), the full estimated weight of that item shall be included in the curb weight computation of each vehicle available with that item in that carline, within that engine-system combination. Where it is expected that 33 percent or less of the carline, within an engine-system combination, will be equipped with an item (whether that item is standard equipment or an option) no weight for that item will be added in computing the curb weight for any vehicle in that carline, within that engine-system combination, unless that item is standard equipment on the vehicle. In the case of mutually exclusive options, only the weight of the heavier option will be added in computing the curb weight. Optional items weighing less than three pounds per item need not be considered.

(3) Where it is expected that more than 33 percent of a car line, within an engine-system combination, will be equipped with an item (whether that item is standard equipment or an option) that can reasonably be expected to influence emissions, then such items shall

actually be installed, unless specifically excluded by the Administrator, on all emission data and durability data vehicles of that car line, within that engine-system combination, on which the items are intended to be offered in production. Items that can reasonably be expected to influence emissions are: air conditioning, power steering, power brakes, and other items determined by the Administrator.

(4) Where it is expected that 33 percent or less of a car line within an engine-system combination, will be equipped with an item (whether that item is standard equipment or an option) that can reasonably be expected to influence emissions, that item shall not be installed on any emission data vehicle or durability data vehicle of that car line, within that engine-system combination, unless that item is standard equipment on that vehicle or specifically required by the Administrator.

3. A new § 86.078-37 is added and reads as follows:

#### § 86.078-37 Production vehicles and engines.

(a) (see paragraph (a) of § 86.077-37.)

(b) (1) Any manufacturer of light duty vehicles or light duty trucks, obtaining certification under this part shall notify the Administrator, on a quarterly basis, of the number of vehicles domestically produced for sale in the United States and the number of vehicles produced and imported for sale in the United States during the preceding quarter. A manufacturer may elect to provide this information every 60 days instead of quarterly, to combine it with the notification required under § 86.077-36. The notification must be submitted 30 days after the close of the reporting period. The vehicle production information required shall be submitted as follows:

(i) Total production volume expressed in terms of units produced.

(ii) Model type production volume, expressed for each model type in terms of units produced and as a percentage of total production.

(iii) Base level production volume, expressed for each base level in terms of units produced and as a percentage of (A) the total production of its respective model type(s) and, (B) total production.

(iv) Vehicle configuration production volume, expressed for each vehicle configuration in terms of units produced, and as a percentage of the total production of its respective base level. In addition, each vehicle configuration shall be identified by its appropriate engine-system combination.

(2) [See paragraph (b) (2) of § 86.077-37]

(c) [See paragraph (c) of § 86.077-37]

(d) The following definitions apply to this section:

(1) "Model Type" means a unique combination of car line, basic engine, and transmission class.

(2) "Base Level" means a unique combination of basic engine, inertia weight, and transmission class.

4. It is proposed to add a new section, § 86.113-79, to read as follows:

§ 86.113-79 Fuel specifications.

(a) *Gasoline.* (1) Gasoline having the following specifications will be used by the Administrator in exhaust and evaporative testing.

Item	ASTM	Leaded	Unleaded
Octane, research, minimum	D2699	98	93
Sensitivity, minimum		9.0	7.5
Lead (organic), grams/U.S. gallon		1.4	0.00-0.05
Distillation range:			
IBP, °F	D86	75-95	75-95
10 pct point, °F	D86	120-135	120-135
50 pct point, °F	D86	200-230	200-230
90 pct point, °F	D86	300-325	300-325
EP, °F (maximum)	D86	415	415
Sulphur, weight percent, maximum	D1266	0.10	0.10
Phosphorus, grams/U.S. gallon, maximum		0.01	0.005
RVP <sup>2</sup> pounds per square inch	D323	8.7-9.2	8.7-9.2
Hydrocarbon composition:			
Olefins, percent, maximum	D1319	10	10
Aromatics, percent maximum	D1319	35	35
Saturates	D1319	(c)	(c)

<sup>1</sup> Minimum.

<sup>2</sup> For testing at altitudes above 1,219 m (4,000 ft) the specified range is 7.5-10.5.

<sup>3</sup> For testing which is unrelated to evaporative emission control, the specified range is 8.0-9.2.

<sup>4</sup> For testing at altitudes above 1,219 m (4,000 ft) the specified range is 7.9-9.2.

<sup>5</sup> Remainder.

(2) Gasoline representative of commercial gasoline which will be generally available through retail outlets shall be used in service accumulation. For leaded gasoline the minimum lead content shall be 1.4 grams per U.S. gallon, except that where the Administrator determines that vehicles represented by a test vehicle will be operated using gasoline of different lead content than that prescribed in this paragraph, he may consent in writing to use a gasoline with a different lead content. The octane rating of the gasoline used shall be no higher than 1.0 research octane number above the minimum recommended by the manufacturer and have a minimum sensitivity of 8.0 octane numbers, where sensitivity is defined as the Research octane number minus the Motor octane number. The Reid Vapor Pressure of the gasoline used shall be characteristic of the motor fuel used during the season in which the service accumulation takes place.

(3) The specification range of the gasoline to be used under paragraph (a) (2) of this section shall be reported in accordance with § 86.077-21(b) (3).

§ 86.113-78 [Amended]

5. § 86.113-78 is amended by revising the last sentence of the text and the table in paragraph (b) (2), and revising the last sentence of the text and the table in paragraph (b) (3) as follows:

(b) \* \* \*

(2) \* \* \* "Type 2D" grade diesel fuel shall be used.

orative emission testing. Gasoline having the following specifications or substantially equivalent specifications approved by the Administrator, shall be used by the manufacturer in exhaust and evaporative testing, except that the lead and octane specifications do not apply.

Item	ASTM test method No.	Type 2-D
Cetane	D613	42-50
Distillation range	D86	
IBP, °F		340-400
10 pct point, °F		400-460
50 pct point, °F		470-540
90 pct point, °F		550-610
EP, °F		580-660
Gravity, °API	D287	33-37
Total sulfur, percent	D129 or D2622	0.2-0.5
Hydrocarbon composition:	D1319	
Aromatics, percent (minimum)		27
Paraffins, naphthenes, olefins		Remainder
Flashpoint, °F (minimum)	D93	130
Viscosity, centistokes	D445	2.0-3.2

(3) \* \* \* "Type 2-D" grade diesel fuel shall be used.

Item	ASTM test method No.	Type 2-D
Cetane (minimum)	D613	38-58
Distillation range:		
90 percent point, °F	D86	430-630
Gravity °API	D287	30-42
Total sulfur, percent (minimum)	D129 or D2622	0.2
Flashpoint, °F (minimum)	D93	130
Viscosity, centistokes	D445	1.5-4.5

6. § 86.114-78 is amended by adding paragraph (a) (7) to read as follows:

§ 86.114-78 Analytical gases.

(a) \* \* \*

(7) The use of proportioning and precision blending devices to obtain the re-

quired analyzer gas concentrations is allowable provided their use has been approved in advance by the Administrator.

7. § 86.121-78 is amended by revising paragraph (b) (3) to read as follows:

§ 86.121-78 Hydrocarbon analyzer calibration.

(b) \* \* \*

(3) Calibrate on each normally used operating range with propane in air calibration gases having nominal concentrations of 15, 30, 45, 60, 75, and 90 percent of that range. For each range calibrated, if the deviation from a least-squares best-fit straight line is 2 percent or less of the value at each data point, concentration values may be calculated by use of a single calibration factor for that range. If the deviation exceeds 2 percent at any point, the best-fit non-linear equation which represents the data to within 2 percent of each test point shall be used to determine concentration.

8. § 86.123-78 is amended by revising paragraph (b) (3) to read as follows:

§ 86.123-78 Oxides of nitrogen analyzer calibration.

(b) \* \* \*

(3) Calibrate on each normally used operating range with NO in N<sub>2</sub> calibration gases having nominal concentrations of 15, 30, 45, 60, 75, and 90 percent of that range. For each range calibrated, if the deviation from a least-squares best-fit straight line is 2 percent or less of the value at each data point, concentration values may be calculated by use of a single calibration factor for that range. If the deviation exceeds 2 percent at any point, the best-fit non-linear equation which represents the data to within 2 percent of each test point shall be used to determine concentration.

9. It is proposed to add a new section, § 86.129-79, to read as follows:

§ 86.129-79 Dynamometer Adjustment To Stimulate Vehicle Inertia and Road Load.

(a) Flywheels, electrical or other means of simulating inertia as shown in the following table be used.

(1) *Light duty vehicles.*

Loaded vehicle weight (pounds)	Equivalent inertia weight (pounds)
Up to 1,062	1,000
1,063 to 1,187	1,125
1,188 to 1,312	1,250
1,313 to 1,437	1,375
1,438 to 1,562	1,500

Loaded vehicle weight (pounds)	Equivalent inertia weight (pounds)
1,563 to 1,687	1,625
1,688 to 1,812	1,750
1,813 to 1,937	1,875
1,938 to 2,062	2,000
2,063 to 2,187	2,125
2,188 to 2,312	2,250
2,313 to 2,437	2,375
2,438 to 2,562	2,500
2,563 to 2,687	2,625
2,688 to 2,812	2,750
2,813 to 2,937	2,875
2,938 to 3,062	3,000
3,063 to 3,187	3,125
3,188 to 3,312	3,250
3,313 to 3,437	3,375
3,438 to 3,562	3,500
3,563 to 3,687	3,625
3,688 to 3,812	3,750
3,813 to 3,937	3,875
3,938 to 4,125	4,000
4,126 to 4,375	4,250
4,376 to 4,625	4,500
4,626 to 4,875	4,750
4,876 to 5,125	5,000
5,126 to 5,375	5,250
5,376 to above	5,500

(2) Light duty trucks. The table in paragraph (a) (1) of this section shall apply to light duty trucks with loaded vehicle weights below 5,375 lbs. Above 5,375 lbs, the following table shall apply:

Loaded vehicle weight (pounds)	Equivalent inertia weight (pounds)
5376 to 5750	5,500
5751 to 6250	6,000
6251 to 6750	6,500
6751 to 7250	7,000
7251 to 7750	7,500
7751 to 8250	8,000
8251 to 8750	8,500
8751 to 9250	9,000
9251 to 9750	9,500
9751 to 10,000	10,000

(b) Power absorption unit adjustment.

(1) The power absorption unit shall be adjusted to reproduce road load power at 50 mph true speed. The indicated road load power setting shall take into account the dynamometer friction. The relationship between road load (absorbed) power and indicated road load power for a particular dynamometer shall be determined by the procedure outlined in § 86.118 or other suitable means.

(2) The dynamometer road load setting is determined from the equivalent inertia weight, the frontal area, the body shape, the vehicle protuberances and the tire type by the following equations. Alternately, the vehicle road load may be determined by a procedure proposed by the manufacturer and approved in advance by the Administrator.

(i) For light duty vehicles to be tested on a twin roll dynamometer (with nominal roll size of 8.65" and 17" nominal roll spacing<sup>6</sup>).

$$Hp = 2.48 + 4.78 \times 10^{-3} A + 1.73 \times 10^{-2} AS + 1.56P + 2.17 \times 10^{-4} TW$$

<sup>6</sup> NOTE.—Dynamometers with roll specifications other than those shown may be used if the road load power settings can be shown to be equivalent and if approved in advance by the Administrator.

where:

- Hp—the dynamometer power absorber setting at 50 mph (horsepower)
- A—vehicle frontal area (ft.<sup>2</sup>)
- S—vehicle shape factor (dimensionless)
- P—vehicle protuberance factor (dimensionless)
- T—tire type (0 for bias ply tires, -1 for radial ply)
- W—vehicle equivalent inertia weight (lbs.) from the table in paragraph (a)

(A) The vehicle shape factor is given by:

$$S = \sum_{i=1}^6 a_i s_i$$

where the  $a_i$  weighting factors are:

- $a_1=2$
- $a_2=1$
- $a_3=1$
- $a_4=1$
- $a_5=1$
- $a_6=2$

and the  $s_i$  are defined in the following paragraphs.

(1) The shape factors consider the front deck of the vehicle, the rear deck, the front, rear and side surfaces and the transitions from these surfaces to the other vehicle surfaces. The front deck is defined as the horizontal or inclined surface extending forward from the foremost point of the windshield. The rear deck is defined to include all horizontal or inclined surfaces extending rearward from the rearmost point of the windshield. The front surface of the vehicle is defined as the vertical or nearly vertical surface at the front of the vehicle. The vehicle side surface is defined as the vertical or nearly vertical surface in a frontal view of the vehicle.

(2) The term  $s_1$  describes the longitudinal sections of the front deck of the vehicle and their transition into the front surface (side view of the vehicle front deck).

$s_1 = -1$  for those vehicles where the projected area of the front deck of the vehicle, which is inclined less than 30° from the horizontal, is at least 33% of the projected frontal area of the vehicle below the windshield-body transition.

$s_1 = -1$  for those vehicles where the transition from the front deck to the front surface has a radius of curvature greater than 8" in all longitudinal sections. (The curvature must subtend an angle greater than or equal to one radian to be considered.)

$s_1 = 0$  for those vehicles not satisfying the  $s_1 = -1$  criteria, but where the transition from the front deck to the front surface has a radius of curvature greater than 4" but less than or equal to 8" in all longitudinal sections. (The curvature must subtend an angle of greater than or equal to one radian to be considered.)

$s_1 = +1$  for all other vehicles.

(3) The term  $s_2$  describes the transition between the vehicle front and side surfaces through horizontal sections. (Top view of the vehicle front surface.)

$s_2 = -1$  for those vehicles where the transition has a radius of curvature greater than 8" in all horizontal sections. In addition there can be no protuberances on this surface.

$s_2 = 0$  for those vehicles where the transition has a radius of curvature greater than 4" but less than 8" in all horizontal sections. In addition, there can be no protuberances on this surface.

$s_2 = +1$  for all other vehicles.

(4) The term  $s_3$  describes the windshield surface, and the transition of this surface to the vehicle side surface through horizontal sections. (Top view.)

$s_3 = -1$  for those vehicles where the radius of curvature of the transition from the center of the windshield to the side surface of the vehicle is greater than 8".

$s_3 = 0$  for those vehicles where the radius of curvature of the transition from the center of the windshield to the side of the vehicle is greater than 4" but less than or equal to 8".

$s_3 = +1$  for all other vehicles.

(5) The term  $s_4$  describes the angle of inclination (from horizontal) of the windshield at the centerline.

$s_4 = -1$  for vehicles where the angle of inclination is less than 30° from horizontal.

$s_4 = 0$  for vehicles where the angle of inclination is less than 60° but greater than or equal to 30° from horizontal.

$s_4 = +1$  for vehicles not satisfying either of the above criteria.

(6) The term  $s_5$  describes the transition of the side surface to the rear surface through horizontal sections. (Top view of the vehicle rear.)

$s_5 = -1$  for those vehicles where at least 33% of the rear projected area of the vehicle have lines of intersection with horizontal longitudinal planes which form an angle of less than 20° from the longitudinal axis of the vehicle.

$s_5 = 0$  for those vehicles where at least 20% but less than 33% of the rear projected area of the vehicle have lines of intersection with horizontal longitudinal planes which form an angle of less than 20° with the longitudinal axis of the vehicle.

$s_5 = +1$  for all other vehicles.

(7) The term  $s_6$  describes the longitudinal sections of the rear deck of the vehicle and their transition into the rear surface. (Side view of the vehicle rear deck.)

$s_6 = -2$  for those vehicles where greater than 50% of the projected rear areas of the vehicle have lines of intersection with vertical longitudinal section planes which are inclined less than 20° from the horizontal.

$s_6 = -1$  for those vehicles where greater than 33% but less than or equal to 50% of the projected rear area of the vehicle has lines of intersection with vertical longitudinal section planes which are inclined less than 20° from the horizontal.

$s_6 = 0$  for those vehicles where greater than 33% of the projected rear area of the vehicle has lines of intersection with vertical longitudinal section planes which are inclined less than 45° from the horizontal.

$s_6 = +1$  for those vehicles not satisfying the  $s_6 = -2$ ,  $s_6 = -1$  or  $s_6 = 0$  criteria, but which have closed rear surfaces.

$s_6 = +2$  for those vehicles with an open rear surface, (such as a pick-up bed).

(B) The protuberance factor is given by:

$$P = \sum_{i=1}^7 b_i p_i$$

where the weighting factors  $b_i$  are:

- $b_1=1.00$
- $b_2=0.200$
- $b_3=0.091$
- $b_4=0.215$
- $b_5=0.250$
- $b_6=0.250$
- $b_7=0.500$

The protuberance terms are:

$P_1=1$  if the vehicle is equipped with a roof rack

$P_2$ —the number of protruding external aerials

$P_3$ —the number of hood ornaments protruding more than 0.375 inch from the hood surface

$P_4$ —the number of mirrors on the vehicle which are not located directly in the vehicle air stream, having aerodynamic shapes (where the longitudinal dimension exceeds the maximum transverse dimension).

$P_5$ —the number of mirrors on the vehicle, not directly located in the vehicle air stream, but which do not meet the dimensional criterion of  $P_4$ .

$P_6$ —the number of mirrors on the vehicle which are located in the vehicle air stream, having aerodynamic shapes (where the maximum longitudinal dimension exceeds the maximum transverse dimension).

$P_7$ —the number of mirrors on the vehicle not meeting the criteria of  $P_1, P_3$ , or  $P_5$

(I) Protuberance terms  $p_1, p_2$ , &  $p_3$  shall be zero if the vehicle is not equipped with such items. For protuberance terms  $p_4$  through  $p_7$ , a mirror shall be considered in the vehicle air stream unless it is entirely behind the projection of the windshield surface and within 8" of the vehicle side.

(ii) For light duty vehicles to be tested on a single, large roll dynamometer (with nominal roll diameter of 48 inches\*):

$$H_p = 2.48 + 4.78 \times 10^{-1} A + 1.73 \times 10^{-2} AS + 1.56P + (0.13 \times 10^{-4} + 1.08 \times 10^{-4} T)W$$

All symbols in the above equation are defined in paragraph (b) (2) (i) of this section.

(iii) For light duty trucks to be tested on a twin roll dynamometer (with nominal roll size 8.65" and 17" nominal spacing):

$$H_p = 2.48 + 4.78 \times 10^{-1} A + 1.73 \times 10^{-2} AS + 1.56P + 2.17 \times 10^{-4} TW$$

All symbols in the above equation are defined in paragraph (b) (2) (i) of this section.

(iv) For light duty trucks to be tested on a single, large roll dynamometer (with nominal roll diameter of 48 inches\*):

$$H_p = 2.48 + 4.78 \times 10^{-1} A + 1.73 \times 10^{-2} AS + 1.56 + (0.13 \times 10^{-4} + 1.08 \times 10^{-4} T)W$$

All symbols in the above equation are defined in paragraph (b) (2) (i).

(v) If vehicles exist within a car line within an engine-system combination with different shapes and protuberance factors, these factors shall be chosen such that less than 33% of the vehicles sold have a higher actual or expected road load than the value resulting from the methodology contained in this paragraph using the selected shape and protuberance factors.

(3) Where it is expected that more than 33 percent of a car line within an engine-system combination will be equipped with air conditioning, per § 86.078-24(g) (2), the road load power as determined in paragraph (b) (2) of this section shall be increased by 10 percent for testing all test vehicles of that car line within that engine-system combination if those vehicles are intended to be offered with air conditioning in production.

10. § 86.135-78 is amended by adding paragraph (h) to read as follows:

§ 86.135-78 Dynamometer procedure.

(h) The driving distance as measured by counting the number of dynamometer roll or shaft revolutions, shall be determined for the transient cold start, stabilized cold start, and transient hot start phases of the test. The revolutions shall be measured on the same roll or shaft used for measuring the vehicle's speed.

11. § 86.136-78 is amended by revising paragraph (c) to read as follows:

§ 86.136-78 Engine starting and re-starting.

(c) If the vehicle does not start after 10 seconds of cranking, cranking shall cease and the reason for failure to start shall be determined. The gas flow measuring device (or revolution counter) on the constant volume sampler (and the

\* Dynamometers with roll specifications other than those shown may be used if the road load power settings can be shown to be equivalent and if approved in advance by the Administrator.

hydrocarbon integrator when testing diesel vehicles, see § 85.135 Dynamometer Test Runs) shall be turned off and the sample selector valves placed in the "standby" position during this diagnostic period. In addition, either the CVS should be turned off or the exhaust tube disconnected from the tailpipe during the diagnostic period. If failure to start is an operational error, the vehicle shall be rescheduled for testing from a cold start.

(1) If a failure to start occurs during the cold portion of the test and is caused by a vehicle malfunction corrective action of less than 30 minutes duration may be taken (according to § 86.077-25), and the test continued. The sampling system shall be reactivated at the same time cranking begins. When the engine starts, the driving schedule timing sequence shall begin. If failure to start is caused by vehicle malfunction and the vehicle cannot be started, the test shall be voided, the vehicle removed from the dynamometer, and corrective action may be taken according to § 86.077-25. The reasons for the malfunction (if determined) and the corrective action taken shall be reported.

(2) If a failure to start occurs during the hot start portion of the test and is caused by vehicle malfunction, the vehicle must be started within one minute of key on. The sampling system shall be reactivated at the same time cranking begins. When the engine starts, the driving schedule timing sequence shall begin. If the vehicle cannot be started within one minute of key on, the test shall be voided, the vehicle removed from the dynamometer, corrective action taken, (according to § 86.077-25), and the vehicle rescheduled for testing. The reason for the malfunction (if determined) and the corrective action taken shall be reported.

12. § 86.137-78 is amended by adding a second sentence to paragraph (b) (1), revising paragraph (b) (7), inserting a sentence after the first sentence of paragraph (b) (11), inserting a sentence after the first sentence of paragraph (b) (13), revising the second sentence of paragraph (b) (16), and adding a sentence at the end of paragraph (b) (17). § 86.137-78 is amended to read as follows:

§ 86.137-78 Dynamometer test runs.

(b) \* \* \* \* \*

(1) \* \* \* \* \* Reset and enable the roll revolution counter.

(7) Start the gas flow measuring device, position the sample selector valves to direct the sample flow into the "transient" exhaust sample bag and the "transient" dilution air sample bag (turn on the diesel hydrocarbon analyzer system integrator and mark the recorder chart, if applicable), turn the key on, and start cranking the engine.

(11) \* \* \* \* \* Before the acceleration which is scheduled to occur at 510 seconds, record the measured roll or shaft

revolutions and reset the counter or switch to a second counter. \* \* \*

(13) \* \* \* \* \* Record the measured roll or shaft revolutions and reset the counter. \* \* \*

(16) \* \* \* \* \* The key-on operation step described in paragraph (b) (7) of this section shall begin between 9 and 11 minutes after the end of the sample period for the cold start test.

(17) \* \* \* \* \* Record the measured roll or shaft revolutions.

13. § 86.142-78 is amended by revising paragraph (f) and adding paragraph (p) to read as follows:

§ 86.142-78 Records required.

(f) Vehicle: ID number, Manufacturer, Model year, Standards, Engine family, Evaporative emissions family, Basic engine description (including displacement, number of cylinders, and catalysts usage), Fuel system (including number of carburetors, number of carburetor barrels, fuel injection type, and fuel tank(s) capacity and location), Engine code, Inertia weight class, Actual curb weight at zero miles, Actual road load at 50 mph, Transmission configuration, Axle ratio, Car line, Odometer reading, Idle rpm and Drive wheel tire pressure, as applicable.

(p) The driving distance for each of the three phases of the test, calculated from the measured roll of shaft revolutions.

14. Section 86.144-78 is amended by revising paragraph (a); adding two terms to the end of the text portion of paragraph (d) (1), revising the equation for humidity and adding two equations to the end of paragraph (d) (1); adding two equations to the end of paragraph (d) (2); adding two equations to the end of paragraph (d) (3); and revising paragraph (d) (4). § 86.144-78 is amended to read as follows:

§ 86.144-78 Calculations; exhaust emissions.

The final reported test results shall be computed by use of the following formula:

(a) For light duty vehicles and light duty trucks:

$$Y_{wm} = 0.43 ((Y_{st} + Y_s) / (D_{st} + D_s)) + 0.57 ((Y_{ht} + Y_h) / (D_{ht} + D_h))$$

Where:

$Y_{wm}$  = Weighted mass emissions of each pollutant, i.e., HC, CO, NO<sub>x</sub> or CO<sub>2</sub>, in grams per vehicle mile.  
 $Y_{st}$  = Mass emissions as calculated from the "stabilized" phase of the cold start test, in grams per test phase.  
 $Y_{ht}$  = Mass emissions as calculated from the "transient" phase of the hot start test, in grams per test phase.  
 $Y_s$  = Mass emissions as calculated from the "stabilized" phase of the cold start test, in grams per test phase.  
 $D_{st}$  = The measured driving distance from the "transient" phase of the cold start test, in miles.  
 $D_{ht}$  = The measured driving distance from the "transient" phase of the hot start test, in miles.  
 $D_s$  = The measured driving distance from the "stabilized" phase of the cold start test, in miles.

(d) \* \* \*

(1) \* \* \*  $CO_M = 0.032\%$ ;  $D_{01} = 3.598$  miles.

$H = (43.478) (48.2) (22.225) / [762 - (22.225 \times 48.2 / 100)] = 62$   
grains of water per pound of dry air.

$CO_{zone} = 1.43 - .032 (1 - 1/9.116) = 1.402\%$   
 $CO_{zone} = (2595.0) (51.85) (1.402/100)$   
 $= 1886$  grams per test phase.

(2) \* \* \*

$CO_{zone} = 2346$  grams per test phase.  
 $D_s = 3.902$  miles.

(3) \* \* \*

$CO_{zone} = 1758$  grams per test phase.  
 $D_{ht} = 3.598$  miles.

(4) Weighted mass emission results:

$HC_{wm} = 0.43 [(4.027 + 0.62) / (3.598 + 3.902)] + 0.57 [(0.51 + 0.62) / (3.598 + 3.902)] = 0.352$  grams per vehicle mile.

$NO_{wm} = 0.43 [(1.389 + 1.27) / (3.598 + 3.902)] + 0.57 [(1.38 + 1.27) / (3.598 + 3.902)] = 354$  grams per vehicle mile.

$CO_{wm} = 0.43 [(23.96 + 5.08) / (3.598 + 3.902)] + 0.57 [(5.01 + 5.98) / (3.598 + 3.902)] = 2.55$  grams per vehicle mile.

$CO_{2wm} = 0.43 [(1886 + 2346) / (3.598 + 3.902)] + 0.57 [(1758 + 2346) / (3.598 + 3.902)] = 555$  grams per vehicle mile.

Sec. 202, 206, 207, 208 and 301(a) of the Clean Air Act, as amended (42 U.S.C. 1857f-1, 1857f-5, 1857f-5a, 1857f-6, 1857g(a)).

15, 40 CFR Part 600 is added as follows:

**Subpart A—Fuel Economy Regulations for 1977 and Later Model Year Automobiles—General Provisions**

- Sec.
- 600.001-77 General applicability.
  - 600.002-77 Definitions.
  - 600.003-77 Abbreviations.
  - 600.004-77 Section numbering, construction.
  - 600.005-77 [Reserved]
  - 600.006-77 Data to be submitted.
  - 600.007-77 Vehicle acceptability.
  - 600.008-77 Review of fuel economy data, testing by the Administrator.
  - 600.009-77 Hearings on acceptance of test data.

**Subpart B—Fuel Economy Regulations for 1978 and Later Model Year Automobiles—Test Procedures**

- 600.101-78 General applicability.
- 600.102-78 Definitions.
- 600.103-78 Abbreviations.
- 600.104-78 Section numbering, construction.
- 600.105-78 Record keeping.
- 600.106-78 Equipment requirements.
- 600.107-78 Fuel specifications.
- 600.108-78 Analytical gases.
- 600.109-78 EPA driving cycles.
- 600.110-78 Equipment calibration.
- 600.111-78 Test procedures.
- 600.112-78 Exhaust sample analysis.
- 600.113-78 Fuel economy calculations.

**Subpart C—Fuel Economy Regulations for 1977 and Later Model Year Automobiles—Procedures for Calculating Fuel Economy Values**

- 600.201-77 General applicability.
- 600.202-77 Definitions.
- 600.203-77 Abbreviations.
- 600.204-77 Section numbering, construction.
- 600.205-77 Record keeping.
- 600.206-77 Calculation and use of fuel economy values for a vehicle configuration.
- 600.207-77 Calculation and use of fuel economy values for a model type.

**Subpart D [Reserved]**

**Subpart E [Reserved]**

**Subpart F—Fuel Economy Regulations for 1978 and Later Model Year Automobiles—Procedures for Determining Manufacturer's Average Fuel Economy**

- 600.501-78 General applicability.
- 600.502-78 Definitions.
- 600.503-78 Abbreviations.
- 600.504-78 Section numbering, construction.
- 600.505-78 Record keeping.
- 600.506-78 Preliminary determination of manufacturer's average.
- 600.507-78 Running change data requirements.
- 600.508-78 Addition of a base level-data requirements.
- 600.509-78 Voluntary submission of additional data.
- 600.510-78 Determination of average fuel economy.
- 600.511-78 Determination of domestic production.
- 600.511-80 Determination of domestic production.
- 600.512-78 Independent audit of production data.

Appendix I—Highway Fuel Economy Driving Schedule.

Appendix II—Sample Test Value Calculation.

**AUTHORITY:** Title V of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1901 et seq.) as amended by Title III of the Energy Policy and Conservation Act, Pub. L. 94-163, 89 Stat. 871.

**Subpart A—Fuel Economy Regulations for 1977 and Later Model Year Automobiles—General Provisions**

§ 600.001-77 General applicability.

The provisions of this subpart are applicable to 1977 and later model year automobiles. The requirements apply to all automobiles of the respective model year regardless of the date of production.

§ 600.002-77 Definitions.

(a) As used in this subpart all terms not defined herein shall have the meaning given them in the Act:

(1) "Act" means Part I of Title V of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1901 et seq.).

(2) "Administrator" means the Administrator of the Environmental Protection Agency or his authorized representative.

(3) "Secretary" means the Secretary of Transportation or his authorized representative.

(4) "Automobile" means any 4-wheeled vehicle propelled by fuel which is manufactured primarily for use on public streets, roads, or highways (except any vehicle operated on a rail or rails) and which is rated at 6,000 lbs gross vehicle weight or less or is a type of vehicle which the Secretary determines is substantially used for the same purposes.

(5) "Passenger Automobile" means any automobile which the Secretary determines is manufactured primarily for use in the transportation of no more than 10 individuals.

(6) "Model Year" means the manufacturer's annual production period (as determined by the Administrator) which includes January 1 of such calendar year.

If a manufacturer has no annual production period, the term "model year" means the calendar year.

(7) "Federal Emission Test Procedure" refers to the dynamometer driving schedule, dynamometer procedure, and sampling and analytical procedures described in Part 86 for the respective model year, which are used to derive city fuel economy data.

(8) "Federal Highway Fuel Economy Test Procedure" refers to the dynamometer driving schedule, dynamometer procedure, and sampling and analytical procedures described in Subpart B of this part and which are used to derive highway fuel economy data.

(9) "Fuel" means gasoline and diesel fuel.

(10) "Fuel Economy" means the average number of miles traveled by an automobile or group of automobiles per gallon of gasoline or diesel fuel consumed as computed in § 600.113 or § 600.207.

(11) "City Fuel Economy" means the fuel economy determined by operating a vehicle (or vehicles) over the driving schedule in the Federal Emission Test Procedure.

(12) "Highway Fuel Economy" means the fuel economy determined by operating a vehicle (or vehicles) over the driving schedule in the Federal Highway Fuel Economy Test Procedure.

(13) "Combined Fuel Economy" means the fuel economy value determined for a vehicle (or vehicles) by harmonically averaging the city and highway fuel economy values, weighted 0.55 and 0.45 respectively.

(14) "Average Fuel Economy" means the production-weighted combined fuel economy value of all passenger automobiles produced by a manufacturer in a single model year as computed in § 600.510.

(15) "Certification Vehicle" means a vehicle which is selected under § 86.077-24(b) and used to determine compliance under § 86.077-30 for issuance of an original certificate of conformity.

(16) "Fuel Economy Data Vehicle" means a vehicle used for the purpose of determining fuel economy which is not a certification vehicle.

(17) "Label" means a sticker that contains fuel economy information and is affixed to new automobiles in accordance with Subpart D of this part.

(18) "Dealer" means a person who resides or is located in the United States, any territory of the United States or the District of Columbia and who is engaged in the sale or distribution of new automobiles to the ultimate purchaser.

(19) "Model Type" means a unique combination of car line, basic engine, and transmission class.

(20) "Car Line" means a name denoting a group of vehicles within a make or car division which has a degree of commonality in construction (e.g., body, chassis.) Car line does not consider any level of decor or opulence and is not gen-

erally distinguished by characteristics as roof line, number of doors, seats or windows except for station wagons or light-duty trucks. Station wagons and light-duty trucks are considered to be different car lines than passenger cars.

(21) "Basic Engine" means a unique combination of manufacturer, engine displacement, number of cylinders, fuel system (as distinguished by number of carburetor barrels or use of fuel injection), catalyst usage, and other engine and emission control system characteristics specified by the Administrator.

(22) "Transmission Class" means the basic type of transmission, e.g., manual, automatic or semi-automatic.

(23) "Base Level" means a unique combination of basic engine, inertia weight, and transmission class.

(24) "Vehicle Configuration" means a unique combination of basic engine, engine code, inertia weight, transmission configuration, and axle ratio within a base level.

(25) "Engine Code" means a unique combination, within an engine-system combination (as defined in Part 86), of displacement, carburetor (or fuel injection) calibration, distributor calibration, choke calibration, auxiliary emission control devices and other engine and emission control system components specified by the Administrator.

(26) "Inertia Weight" means the inertia weight class into which a vehicle is grouped based on its loaded vehicle weight in accordance with the provisions of Part 86.

(27) "Transmission Configuration" means a unique combination, within a transmission class, of the number of forward gears, and, if applicable, overdrive. The Administrator may further subdivide a transmission configuration (based on such criteria as gear ratios, torque converter multiplication ratio, stall speed, shift calibration, etc.) if he determines that significant fuel economy differences exist within that transmission configuration.

(28) "Axle Ratio" means the number of times the input shaft to the differential (or equivalent) turns for each turn of the drive wheels.

(29) "Auxiliary Emission Control Devices (AECD)" means an element of design as defined in Part 86.

(30) "Rounded" means a number shortened to the specific number of decimal places in accordance with the "Round Off Method" specified in ASTM E 29-67.

(31) "Calibration" means the set of specifications, including tolerances, unique to a particular design, version or application of a component or component assembly capable of functionally describing its operation over its working range.

(32) "Production Volume" means, for a domestic manufacturer, the number of vehicle units domestically produced in a particular model year but not exported, and for a foreign manufacturer, means the number of vehicle units of a particular model imported into the United States.

#### § 600.003-77 Abbreviations.

(a) The abbreviations used in this subpart have the same meaning as those in 40 CFR Part 86, with the addition of the following: "MPG" means miles per gallon.

#### § 600.004-77 Section numbering, construction.

The model year of initial applicability is indicated by the section number. The two digits following the hyphen designate the first model year for which a section is effective. A section is effective until superseded.

EXAMPLE: Section 600.111-78 applies to the 1978 and subsequent model years until superseded. If a section 600.111-81 is promulgated it would take effect beginning with the 1981 model year; § 600.111-78 would apply to model years 1978 through 1980.

#### § 600.005-77 [Reserved]

#### § 600.006-77 Data to be submitted.

(a) For certification vehicles the requirements of this section are considered to have been met.

(b) The manufacturer shall submit the following information for each fuel economy data vehicle:

(1) A description of the vehicle, exhaust emission test results, applicable deterioration factors, and adjusted exhaust emission levels.

(2) A statement of the origin of the vehicle including total mileage, mode of mileage accumulation, and modifications (if any) from the vehicle configuration in which the mileage was accumulated. (For modifications requiring advance approval by the Administrator, the name of the Administrator's representative approving the modification and date of approval are required.) If the vehicle was previously used for testing for compliance with Part 86 of this chapter or previously accepted by the Administrator as a fuel economy data vehicle in a different configuration, the requirements of this subparagraph may be satisfied by reference to the vehicle number and previous configuration.

(3) A description of all maintenance to engine, emission control system or fuel system components performed within 2000 miles prior to fuel economy testing.

(4) A copy of calibrations for engine, fuel system, and emission control devices, showing the calibration of the actual components on the test vehicle as well as the design tolerances. (If calibrations for components were submitted previously as part of the description of another vehicle or configuration, the original submittal may be referenced.)

(5) A statement that the fuel economy data vehicle, with respect to which data are submitted:

(i) Has been tested in accordance with applicable test procedures,

(ii) Is, to the best of the manufacturer's knowledge, representative of the vehicle configuration listed, and

(iii) Is in compliance with applicable exhaust emission standards.

(c) The manufacturer shall submit the following fuel economy data:

(1) For each fuel economy data vehicle: all individual test results, including results of invalid and zero mile tests, and the harmonic average of all city fuel economy tests (except the results of invalid or zero mile tests) and the harmonic average fuel economy of all highway fuel economy tests (except the results of invalid or zero mile tests), conducted by the manufacturer.

(2) For a certification vehicle, as defined in this part and tested by the Administrator under Part 86 of this chapter: the city and highway fuel economy results from the test or tests on that vehicle.

(d) The manufacturer shall submit an indication of the intended purpose of the data (e.g., data required by the general labeling program or voluntarily submitted for specific labeling, etc.).

(e) In lieu of submitting actual data from a test vehicle, a manufacturer may provide fuel economy values derived from an analytical expression, e.g., regression analysis. In order for fuel economy values derived from analytical methods to be accepted, the expression (form and coefficients) must have been approved by the Administrator.

(f) If in conducting tests required or authorized by this part the manufacturer utilizes procedures, equipment, or facilities not described in the Application for Certification required in § 86.077-21, the manufacturer shall submit a description of such procedures, equipment, and facilities.

#### § 600.007-77 Vehicle acceptability.

(a) All certification vehicles and other vehicles tested to meet the requirements of Part 86 (other than those chosen per § 86.077-24(c)) are considered to have met the requirements of this section.

(b) Any vehicle not meeting the provisions of paragraph (a) must be judged acceptable by the Administrator under this section in order for the test results to be reviewed for use in Subpart C or F of this part. The Administrator will judge the acceptability of a fuel economy data vehicle on the basis of the information supplied by the manufacturer under § 600.006(b). The criteria to be met are:

(1) A fuel economy data vehicle may have accumulated not more than 10,000 miles. This requirement will be considered to have been met if the base vehicle (i.e., chassis and basic engine) has accumulated 10,000 or fewer miles. Components other than engine, emission control system, and drivetrain are not required to be the same components installed when the mileage was accumulated.

(2) A vehicle may be tested in different vehicle configurations by change of vehicle components, as specified in paragraph (b)(1), or by testing at different inertia weights or road load power settings. For the purpose of this part, each vehicle configuration will be considered a distinct vehicle and must be identified accordingly.

(3) The mileage on a fuel economy data vehicle must be, to the extent pos-

sible, accumulated according to § 86.077-26(a) (2).

(4) Each fuel economy data vehicle must meet the same exhaust emission standards as certification vehicles of the respective engine-system combination during the test in which the city fuel economy test results are generated. The deterioration factors established for the respective engine-system combination per § 86.077-28 will be used.

(5) The calibration information submitted under § 600.006(b) must be representative of the vehicle configuration for which the fuel economy data were submitted.

(c) If, based on review of the information submitted under § 600.006(b), the Administrator determines that a fuel economy data vehicle meets the requirements of this section, the fuel economy data vehicle will be judged to be acceptable and fuel economy data from that fuel economy data vehicle will be reviewed pursuant to § 600.008.

(d) If, based on the review of the information submitted under § 600.006(b), the Administrator determines that a fuel economy data vehicle does not meet the requirements of this section, the Administrator will reject that fuel economy data vehicle and inform the manufacturer of the rejection in writing.

#### § 600.008-77 Review of fuel economy data, testing by the administrator.

(a) Fuel economy data must be judged acceptable by the Administrator in order for the test results to be used for the purposes of Subpart C or F of this part. The Administrator will evaluate the acceptability of the fuel economy data from either a fuel economy data vehicle or a certification vehicle on the basis of the data submitted under § 600.006 or test data generated by the Administrator, as applicable, in accordance with good engineering practice.

(b) If, in the Administrator's judgment, the city and highway fuel economy results (or the harmonic averages, as applicable, if more than one test were conducted) for a fuel economy data vehicle, or for a certification vehicle, are reasonable and representative, the Administrator will accept the fuel economy data (or harmonic averages, as applicable, of the city and highway fuel economy data if more than one test was conducted) for use in Subpart C or F. In making this determination, the Administrator will, when possible, compare the results of a test vehicle to those of other similar test vehicles.

(c) If, in the Administrator's judgment, the city and highway fuel economy results (or the harmonic averages if more than one test were conducted) for a fuel economy data vehicle or for a certification vehicle are not reasonable or representative, the Administrator will notify the manufacturer in writing of his finding and require the manufacturer to submit the test vehicle(s) in question, at a place he may designate, for the purpose of fuel economy testing.

(d) The Administrator may require that any fuel economy data vehicle or

certification vehicle be submitted, at a place he may designate, for the purpose of confirmation of fuel economy testing.

(e) For any fuel economy data vehicle that the Administrator has required to be submitted, at a place he may designate for the purpose of fuel economy testing, and for any certification vehicle, the Administrator will follow this procedure:

(1) The manufacturer's data (or harmonically averaged data if more than one test was conducted) will be compared with the results of the Administrator's test.

(2) If, in the Administrator's judgment, the comparison in paragraph (e) (1) of this section indicates a disparity in the data, the Administrator will repeat the city test or the highway test or both as applicable.

(i) The manufacturer's average test results and the results of the Administrator's first test will be compared with the results of the Administrator's second test as in paragraph (e) (1) of this section.

(ii) If, in the Administrator's judgment, both comparisons in (2) (i) indicate a disparity in the data, the Administrator will repeat the city fuel economy test or highway fuel economy test or both as applicable until

(A) In the Administrator's judgment no disparity in the data is indicated by comparison of two tests by the Administrator or by comparison of the manufacturer's average test results and a test by the Administrator, or

(B) Four city tests or four highway tests or both, as applicable, are conducted by the Administrator in which a disparity in the data is indicated when compared as in paragraph (e) (2) of this section.

(3) If there is, in the Administrator's judgment, no disparity indicated by comparison of manufacturer's average test results with a test by the Administrator, the test values generated by the Administrator will be used to represent the vehicle.

(4) If there is, in the Administrator's judgment, no disparity indicated by comparison of two tests by the Administrator, the harmonic averages of the city and highway fuel economy results from those tests will be used to represent the vehicle.

(5) If the situation in paragraph (e) (2) (ii) (B) of this section occurs, the Administrator will notify the manufacturer, in writing, that the Administrator rejects that fuel economy data vehicle.

(f) The fuel economy data determined by the Administrator under paragraph (e) (3) or (4) of this section, together with all other fuel economy data submitted for that vehicle under § 600.006 (c) or (e) will be evaluated for reasonableness and representativeness per paragraph (b) of this section. The fuel economy data which are determined to best meet the criteria of paragraph (b) of this section will be accepted for use in Subpart C or F.

(g) If, based on a review of the fuel economy data generated by testing under paragraph (e) of this section, the Ad-

ministrator determines that an unacceptable level of correlation exists between fuel economy data generated by a manufacturer and fuel economy data generated by the Administrator, he may reject all fuel economy data submitted by the manufacturer until the cause of the discrepancy is determined and the validity of the data is established by the manufacturer.

#### § 600.009-77 Hearings on acceptance of test data.

(a) If the Administrator rejects the use of a manufacturer's fuel economy data vehicle, in accordance with § 600.008 (e) or (g), or the use of fuel economy data, in accordance with § 600.008 (c), or (f), or with the determination of a vehicle configuration, in accordance with § 600.206(a), or with the identification of a car line, in accordance with § 600.207(d), or with the fuel economy label values approved by the Administrator under § 600.213(a) the manufacturer may, within 30 days following receipt of such notification, request a hearing on the Administrator's decision. The request may be in writing, signed by an authorized representative of the manufacturer and include a statement specifying the manufacturer's objections to the Administrator's determinations, and data in support of such objection. If, after the review of the request and supporting data, the Administrator finds that the request raises a substantial factual issue, the manufacturer shall have a hearing in accordance with the provisions of this section with respect to such issue.

(b) (1) After granting a request for a hearing under paragraph (a) of this section the Administrator will designate a Presiding Officer for the hearing.

(2) The General Counsel will represent the Environmental Protection Agency in any hearing under this section.

(3) If a time and place for the hearing has not been fixed by the Administrator under paragraph (a) of this section the hearing will be held as soon as practicable at a time and place fixed by the Administrator or by the Presiding Officer.

(c) (1) Upon his appointment pursuant to paragraph (a) of this section, the Presiding Officer shall establish a hearing file. The file consists of the notice issued by the Administrator under paragraph (a) of this section together with any accompanying material, the request for a hearing and the supporting data submitted therewith and correspondence and other data material to the hearing.

(2) The hearing file will be available for inspection by the applicant at the office of the Presiding Officer.

(d) A manufacturer may appear in person, or may be represented by counsel or by any other duly authorized representative.

(e) (1) The Presiding Officer upon the request of any party, or in his discretion, may arrange for a prehearing conference at a time and place specified by the Presiding Officer to consider the following:

(i) Simplification and clarification of the issues;

(ii) Stipulations, admissions of fact, and the introduction of documents;

(iii) Limitation of the number of expert witnesses;

(iv) Possibility of agreement disposing of all or any of the issues in dispute;

(v) Such other matters as may aid in the disposition of the hearing, including such additional tests as may be agreed upon by the parties.

(2) The results of the conference shall be reduced to writing by the Presiding Officer and made part of the record.

(f) (1) Hearings shall be conducted by the Presiding Officer in an informal but orderly and expeditious manner. The parties may offer oral or written evidence, subject to the exclusion by the Presiding Officer of irrelevant, immaterial and repetitious evidence.

(2) Witnesses will not be required to testify under oath. However, the Presiding Officer shall call to the attention of witnesses that their statements may be subject to the provisions of 19 U.S.C. 1001 which imposes penalties for knowingly making false statements or representations, or using false documents in any matter within the jurisdiction of any department or agency of the United States.

(3) Any witnesses may be examined or cross-examined by the Presiding Officer, the parties, or their representatives.

(4) Hearings shall be reported verbatim. Copies of transcripts of proceedings may be purchased by the applicant from the reporter.

(5) All written statements, charts, tabulations, and similar data offered in evidence at the hearing shall, upon a showing satisfactory to the Presiding Officer of their authority, relevancy, and materiality, be received in evidence and shall constitute a part of the record.

(6) Oral argument may be permitted in the discretion of the Presiding Officer and will be reported as part of the record unless otherwise ordered.

(g) (1) The Presiding Officer will make an initial decision which shall include written findings and conclusions and the reasons or basis therefor on all material issues of fact, law or discretion presented on the record. The findings, conclusions, and written decision shall be provided to the parties and made a part of the record. The initial decision shall become the decision of the Administrator without further proceedings unless there is an appeal to the Administrator or motion for review by the Administrator within 20 days of the date the initial decision was filed.

(2) On appeal from or review of the initial decision the Administrator will have all the powers which he would have in making the initial decision including the discretion to require or allow briefs, oral argument, the taking of additional evidence or the remanding to the Presiding Officer for additional proceedings. The decision by the Administration will include written findings and conclusions and the reasons or basis therefor on all the material issues of fact, law or discretion presented on the appeal or considered in the review.

(h) A manufacturer's use of any fuel economy data which the manufacturer challenges pursuant to this section shall not constitute final acceptance by the manufacturer nor prejudice the manufacturer in the exercise of any appeal pursuant to this section challenging such fuel economy data.

#### Subpart B—Fuel Economy Regulations for 1978 and Later Model Year Automobiles—Test Procedures

##### § 600.101-78 General applicability.

The provisions of this subpart are applicable to 1978 and later model year automobiles.

##### § 600.102-78 Definitions.

The definitions in § 600.002 apply to this subpart.

##### § 600.103-78 Abbreviations.

The abbreviations in § 600.003 apply to this subpart.

##### § 600.104-78 Section numbering, construction.

The section numbering system set forth in § 600.004 applies to this subpart.

##### § 600.105-78 Record keeping.

The record keeping requirements set forth in § 600.005 apply to this subpart.

##### § 600.106-78 Equipment requirements.

The requirements for test equipment to be used for all fuel economy testing are given in §§ 86.106, 86.107, 86.108, 86.109, and 86.111 of this chapter, as applicable.

##### § 600.107-78 Fuel specifications.

(a) The test fuel specifications for gasoline-fueled automobiles are given in paragraph (a)(1) of § 86.113 of this chapter.

(b) The test fuel specifications for diesel automobiles are given in paragraphs (b)(1) and (2) of § 86.113 of this chapter.

##### § 600.108-78 Analytical gases.

The analytical gases for all fuel economy testing must meet the criteria given in § 86.114 of this chapter.

##### § 600.109-78 EPA driving cycles.

(a) The driving cycle to be utilized for generation of the city fuel economy data is prescribed in § 86.115 of this chapter.

(b) The driving cycle to be utilized for generation of the highway fuel economy data is specified in this paragraph.

(1) The Highway Fuel Economy Driving Schedule is set forth in Appendix I to this Part. The driving schedule is defined by a smooth trace drawn through the specified speed versus time relationships.

(2) The speed tolerance at any given time on the dynamometer driving schedule specified in Appendix I, or as printed on a driver's aid chart approved by the Administrator, when conducted to meet the requirements of paragraph (b) of § 600.111 is defined by upper and lower limits. The upper limit is 2 mph higher

than the highest point on trace within 1 second of the given time. The lower limit is 2 mph lower than the lowest point on the trace within 1 second of the given time. Speed variations greater than the tolerances (such as may occur during gear changes) are acceptable provided they occur for less than 2 seconds on any occasion. Speeds lower than those prescribed are acceptable provided the vehicle is operated at maximum available power during such occurrences.

(3) A graphic representation of the range of acceptable speed tolerances is found in paragraph (c) of § 86.115 of this chapter.

##### § 600.110-78 Equipment calibration.

The equipment used for fuel economy testing must be calibrated according to the provisions of § 86.116 of this chapter.

##### § 600.111-78 Test procedures.

(a) The test procedures to be followed for generation of the city fuel economy data are those prescribed in §§ 86.127 through 86.138 of this chapter, as applicable. (The evaporative loss portion of the test procedure may be omitted unless specifically required by the Administrator.)

(b) The test procedures to be followed for generation of the highway fuel economy data are those specified in § 600.111-78 (b) through (h) inclusive.

(1) The Highway Fuel Economy Dynamometer Procedure consists of a preconditioning highway driving sequence and a measured highway driving sequence.

(2) The highway fuel economy test is designated to simulate non-metropolitan driving with an average speed of 48.6 mph and a maximum speed of 60 mph. The cycle is 10.2 miles long with 0.2 stops per mile and consists of warmed-up vehicle operation on a chassis dynamometer through a specified driving cycle. A proportional part of the diluted exhaust emissions is collected continuously for subsequent analysis using a constant volume (variable dilution) sampler. Diesel dilute exhaust is continuously analyzed for hydrocarbons using a heated sample line and analyzer.

(3) Except in cases of component malfunction or failure, all emission control systems installed on or incorporated in a new motor vehicle must be functioning during all procedures in this subpart. The Administrator may authorize maintenance to correct component malfunction or failure.

(c) Transmissions—The provisions of § 86.128 of this chapter apply for vehicle transmission operation during highway fuel economy testing under this subpart.

(d) Road load power and inertia weight determination—§ 86.129 of this chapter applies for determination of road load power and inertia weight for highway fuel economy testing.

(e) Vehicle preconditioning—The Highway Fuel Economy Dynamometer Procedure is designed to be performed

immediately following the Federal Emission Test Procedure, §§ 86.127 through 86.138 of this chapter. When conditions allow, the tests should be scheduled in this sequence. In the event the tests cannot be scheduled within three hours of the Federal Emission Test Procedure (including one hour hot soak evaporation loss test, if applicable) the vehicle should be preconditioned as in paragraph (e) (1) or (2) of this section, as applicable.

(1) If the vehicle has experienced more than three hours of soak (68° F–86° F) since the completion of the Federal Emission Test Procedure, or has experienced periods of storage outdoors, or in environments where soak temperature is not controlled to 68° F–86° F, the vehicle must be preconditioned by operation on a dynamometer through one cycle of the EPA Urban Dynamometer Driving Schedule, § 86.115 of this chapter.

(2) In unusual circumstances where additional preconditioning is desired by the manufacturer, the provisions of paragraph (a) (3) of § 86.132 of this chapter apply.

(f) Highway Fuel Economy Dynamometer Procedure—

(1) The dynamometer procedure consists of two cycles of the Highway Fuel Economy Driving Schedule (§ 600.109 (b)) separated by 15 seconds of idle. The first cycle of the Highway Fuel Economy Driving Schedule is driven to precondition the test vehicle and the second is driven for the fuel economy measurement.

(2) The provisions of paragraphs (b), (c), (e), (f), (g), and (h) of § 86.135 Dynamometer procedure of this chapter, apply for highway fuel economy testing.

(3) Only one exhaust sample and one background sample are collected and analyzed for hydrocarbons (except diesel hydrocarbons which are analyzed continuously), carbon monoxide, and carbon dioxide.

(4) The fuel economy measurement cycle of the test includes two seconds of idle indexed at the beginning of the second cycle and two seconds of idle indexed at the end of the second cycle.

(g) Engine starting and restarting—

(1) If the engine is not running at the initiation of the highway fuel economy test (preconditioning cycle), the start-up procedure must be according to the manufacturer's recommended procedures.

(2) False starts and stalls during the preconditioning cycle must be treated as in paragraphs (d) and (e) of § 86.136 of this chapter. If the vehicle stalls during the measurement cycle of the highway fuel economy test, the test is voided, corrective action may be taken according to § 86.077–25 of this chapter, and the vehicle may be rescheduled for test. The person taking the corrective action shall report the action so that the test records for the vehicle contain a record of the action.

(h) Dynamometer Test Run—The following steps must be taken for each test:

(1) Place the drive wheels of the vehicle on the dynamometer. The vehicle may be driven onto the dynamometer.

(2) Open the vehicle engine compartment cover and position the cooling fan(s) required. Manufacturers may request the use of additional cooling fans for additional engine compartment or under-vehicle cooling and for controlling high tire or brake temperatures during dynamometer operation.

(3) Preparation of the CVS must be performed before the measurement highway-driving cycle.

(4) Equipment preparation—The provisions of paragraphs (b) (3) through (5) inclusive of § 86.137 of this chapter apply for highway fuel economy test except that only one exhaust sample collection bag and one dilution air sample collection bag need be connected to the sample collection systems.

(5) Operate the vehicle over one Highway Fuel Economy Driving Schedule cycle according to the dynamometer driving schedule specified in paragraph (b) of § 600.109.

(6) When the vehicle reaches zero speed at the end of the preconditioning cycle, the driver has 13 seconds to prepare for the emission measurement cycle of the test. Reset and enable the roll revolution counter.

(7) Operate the vehicle over one Highway Fuel Economy Driving Schedule cycle according to the dynamometer driving schedule specified in paragraph (b) of § 600.109 while sampling the exhaust gas.

(8) Sampling must begin two seconds before beginning the first acceleration of the fuel economy measurement cycle and must end two seconds after the end of the deceleration to zero. At the end of the deceleration to zero speed, the roll or shaft revolutions must be recorded.

§ 600.112–78 Exhaust sample analysis.

The exhaust sample analysis must be performed according to § 86.140 of this chapter.

§ 600.113–78 Fuel economy calculations.

The calculations of vehicle fuel economy values require the weighted grams/mile values for HC, CO, and CO<sub>2</sub> for the city fuel economy test and the grams/mile values for HC, CO, and CO<sub>2</sub> for the highway fuel economy test. The city and highway fuel economy values must be calculated by the procedures of this section. A sample calculation appears in Appendix II to this Part.

(a) Calculate the weighted grams/mile values for the city fuel economy test for HC, CO, and CO<sub>2</sub> as specified in § 86.144 of this chapter.

(b) (1) Calculate the mass values for the highway fuel economy test for HC, CO, and CO<sub>2</sub> as specified in paragraph (b) of § 86.144 of this chapter.

(2) Calculate the grams/mile values for the highway test for HC, CO, and CO<sub>2</sub> by dividing the mass values obtained in (b) (1) by the actual distance traveled, measured in miles, as specified in paragraph (h) of § 86.135 of this chapter.

(c) Calculate the city fuel economy and highway fuel economy from grams/mile values for HC, CO, and CO<sub>2</sub>. The HC

values (obtained per paragraph (a) or (b) as applicable) used in each calculation in this section are rounded to the nearest 0.01 grams/mile. The CO values (obtained per paragraph (a) or (b) as applicable) used in each calculation in this section are rounded to the nearest 0.1 grams/mile. The CO<sub>2</sub> values (obtained per paragraph (a) or (b) of this section as applicable) used in each calculation in this section are rounded to the nearest gram/mile.

(d) For gasoline-fueled automobiles, calculate the fuel economy in miles per gallon of gasoline by dividing 2421 by the sum of three terms:

(1) 0.866 multiplied by HC (in grams/mile as obtained in paragraph (c)),

(2) 0.429 multiplied by CO (in grams/mile as obtained in paragraph (c)), and

(3) 0.273 multiplied by CO<sub>2</sub> (in grams/mile as obtained in paragraph (c)).

Round to quotient to the nearest 0.1 mile per gallon.

(e) For diesel powered automobiles, calculate the fuel economy in miles per gallon of diesel fuel by dividing 2778 by the sum of three terms:

(1) 0.866 multiplied by HC (in grams/mile as obtained in paragraph (c) of this section),

(2) 0.429 multiplied by CO (in grams/mile as obtained in paragraph (c)), and

(3) 0.273 multiplied by CO<sub>2</sub> (in grams/mile as obtained in paragraph (c)).

Round the quotient to the nearest 0.1 mile per gallon.

**Subpart C—Fuel Economy Regulations for 1977 and Later Model Year Automobiles—Procedures for Calculating Fuel Economy Values**

§ 600.201–77 General applicability.

The provisions of this subpart are applicable to 1977 and later model year automobiles.

§ 600.202–77 Definitions.

The definitions in § 600.002 apply to this subpart.

§ 600.203–77 Abbreviations.

The abbreviations in § 600.003 apply to this subpart.

§ 600.204–77 Section numbering, construction.

The section numbering system set forth in § 600.004 applies to this subpart.

§ 600.205–77 Record keeping.

The record keeping requirements set forth in § 600.005 apply to this subpart.

§ 600.206–77 Calculation and use of fuel economy values for a vehicle configuration.

(a) Fuel economy values determined for each vehicle and as approved in § 600.008 (b) or (f) are used to determine city, highway, and combined fuel economy values for each vehicle configuration (as determined by the Administrator) for which data are available.

(1) If only one city fuel economy and one highway fuel economy value exist

for a vehicle configuration, those values, rounded to the nearest tenth of a mile per gallon, comprise the city fuel economy value and highway fuel economy value for that configuration.

(2) If more than one city fuel economy value and one highway fuel economy value exist for a vehicle configuration, all values for that vehicle configuration are harmonically averaged and rounded to the nearest 0.0001 of a mile per gallon for the city fuel economy values, and harmonically averaged and rounded to the nearest 0.0001 of a mile per gallon for the highway fuel economy values, in order to determine a city and a highway fuel economy value for that configuration.

(3) The combined fuel economy value for a vehicle configuration is calculated by harmonically averaging the city and highway fuel economy values, as determined in § 600.206(a) (1) and (2), weighted 0.55 and 0.45, respectively, and rounding to 0.0001 of a mile per gallon. A sample of this calculation appears in Appendix II to this Part.

**§ 600.207-77 Calculation and use of fuel economy values for a model type.**

(a) Fuel economy values for a base level are calculated from vehicle configuration fuel economy values as determined in § 600.206(a) for low altitude tests.

(1) If the Administrator determines that automobiles intended for sale in the State of California are likely to exhibit significant differences in fuel economy from those intended for sale in other states, he will calculate fuel economy values for each base level for vehicles intended for sale in California and for each base level for vehicles intended for sale in the rest of the states.

(2) The manufacturer shall supply model year sales projections for each vehicle configuration within each car line to the Administrator.

(i) Sales projections must be supplied separately for each vehicle configuration intended for sale in California and each configuration intended for sale in the rest of the states if required by the Administrator under paragraph (a) (1) of this section.

(ii) The sales projections must be updated as of the date a manufacturer requests that fuel economy calculations for a model type be made by the Administrator.

(iii) The requirements of this section may be satisfied by providing an amended application for certification, as described in § 86.007-21 of this chapter.

(3) Vehicle configuration fuel economy values, as determined in § 600.206(a), are grouped according to base level.

(i) If only one vehicle configuration within a base level has been tested, the fuel economy value from that vehicle configuration constitutes the fuel economy for that base level.

(ii) If more than one vehicle configuration within a base level have been tested, the vehicle configuration fuel economy values are harmonically averaged in pro-

portion to the respective projected sales fraction (rounded to the nearest 0.0001) of each vehicle configuration and the resultant fuel economy value rounded to the nearest 0.0001 of a mile per gallon.

(iii) If the Administrator has not accepted test data for at least one vehicle configuration within each base level, the manufacturer shall submit (on or before the date the manufacturer requests the Administrator to calculate the respective general label values), data as specified in § 600.006. The fuel economy data submitted shall be for the vehicle configuration with the largest projected sales within the respective base level.

(4) The procedure specified in § 600.207(a) will be repeated for each base level, thus establishing city, highway, and combined fuel economy values for each base level.

(b) For each model type, as determined by the Administrator, a city, highway, and combined fuel economy value will be calculated by using the projected sales and fuel economy values for each base level within the model type.

(1) If the Administrator determines that automobiles intended for sale in the State of California are likely to exhibit significant differences in fuel economy from those intended for sale in other states, he will calculate fuel economy values for each model type separately for vehicles intended for sale in California and for those intended for sale in the rest of the states.

(2) The sales fraction for each base level is calculated by dividing the projected sales of the base level within the model type by the projected sales of the model type and rounding the quotient to the nearest 0.0001.

(3) The city fuel economy values of the model type (calculated to the nearest 0.0001 mpg) are determined by dividing one by a sum of terms, each of which corresponds to a base level and which is a fraction determined by dividing

(i) The sales fraction of the base level, by

(ii) The city fuel economy value for the respective base level.

(4) The procedure specified in paragraph (b) (3) of this section is repeated in an analogous manner to determine the highway and combined fuel economy values for the model type.

**Subpart D [Reserved]**

**Subpart E [Reserved]**

**Subpart F—Fuel Economy Regulations for 1978 and Later Model Year Automobiles—Procedures for Determining Manufacturer's Average Fuel Economy**

**§ 600.501-78 General applicability.**  
The provisions of this subpart are applicable to 1978 and later model year passenger automobiles.

**§ 600.502-78 Definitions.**

(a) The definitions in § 600.002 and the following definitions apply to this subpart.

(1) "Declared value" of imported components shall be the value at which components are declared by the importer to

the U.S. Customs Service at the date of entry into the customs territory of the United States, or, with respect to imports into Canada, the declared value of such components as if they were declared as imports into the United States at the date of entry into Canada.

(2) "Cost of production" of a car line shall mean the aggregate of the products of:

(i) The average U.S. dealer wholesale price for such car line as computed from each official dealer price list effective during the course of a model year, and

(ii) The number of passenger cars within the car line produced during the part of the model year that the price list was in effect.

**§ 600.503-78 Abbreviations.**

The abbreviations in § 600.003 apply to this subpart.

**§ 600.504-78 Section numbering, construction.**

The section numbering procedure set forth in § 600.004 applies to this subpart.

**§ 600.505-78 Record keeping.**

The record keeping procedure set forth in § 600.005 applies to this subpart.

**§ 600.506-78 Preliminary determination of manufacturer's average.**

(a) The manufacturer shall submit for approval by the Administrator, no later than 10 days after his public introduction date, a determination of his preliminary average fuel economy value, calculated according to the procedures in § 600.510 except that:

(1) Sales projections will be used for the calculations in place of the production values, and must be updated at the time of the preliminary calculation.

(2) The fuel economy data used in the calculation shall be that approved by the Administrator as of the public introduction date including:

(i) All fuel economy data from original certification vehicles and fuel economy data vehicles as required by § 600.207.

(ii) Fuel economy data from all vehicles tested for running changes approved under § 86.077-23, and

(iii) Fuel economy data required by paragraph (c).

(b) Minimum data requirements will be established under paragraph (c) of this section for each base level with a sales fraction of 0.0100 or greater (known as a significant base level).

(1) The sales to be used in this determination are those in paragraph (a) (1) of this section.

(2) For the purposes of this section, the sales fraction for a base level shall be the quotient of projected sales of the base level divided by the manufacturer's total projected sales of passenger automobiles, where total projected sales are calculated according to § 600.511 except that projected sales are used in place of production values.

(c) For each significant base level identified in paragraph (b) of this section the manufacturer shall submit prior to public introduction, fuel economy

data for those vehicle configurations, taken in order of decreasing sales (according to the projection submitted in paragraph (a) (1) of this section, whose sales total a minimum of 90 percent of the sales of that base level. For all other base levels, the minimum data requirements of § 600.207(a) (3) (iii) must be met.

(d) All fuel economy data submitted under this subpart must:

(1) Be determined by the test procedures specified in Subpart B or an approved analytical method as permitted under § 600.006(e), and

(2) Be accepted by the Administrator under the requirements of Subpart A.

**§ 600.507-78 Running change data requirements.**

(a) The manufacturer will be required to submit additional running change fuel economy data for any running change approved under § 86.077-23 which creates a new vehicle configuration in a significant base level originally identified for minimum data under § 600.506 (b), or subsequently identified in § 600.508(b), unless exempted by the Administrator.

(1) The manufacturer may petition the Administrator for an exemption from the requirement to submit additional running change fuel economy data.

(2) If the exemption is not granted, the Administrator will notify the manufacturer of the denial and the manufacturer shall submit running change fuel economy data as prescribed in this section.

(3) If the manufacturer is to generate a credit to be deducted from the amount of civil penalty which has been or may be assessed against him under section 507 (1) of the Act, the manufacturer shall submit additional running change fuel economy data required by this section.

(b) The additional fuel economy data required for a running change in paragraph (a) of this section will be determined based on the sales of the vehicle configurations in the affected base level as updated and submitted to the Administrator at the time of running change approval.

(1) Within each base level identified in paragraph (a) of this section, fuel economy data shall be submitted for the new vehicle configuration, created by the running change, with the greatest projected sales.

(2) Fuel economy data required by this section shall be submitted no later than 30 days after the manufacturer receives approval of the running change for those running changes approved after the calculation of the manufacturer's preliminary average, and no later than 90 days after the calculation of the preliminary average for those running changes approved prior to the calculation of the preliminary average.

(c) Any manufacturer required to submit data under this section as a result of an addition of a base level under § 600.508, must submit data on any running change identified by paragraph (a) of this section.

(1) Data identified by paragraph (a) of this section which were approved prior to the date of approval to add the base level which caused the recalculation of the preliminary average fuel economy value according to § 600.508, must meet the requirements of (b) of this section, except that the data may be submitted at any time before the final calculation of the manufacturer's average fuel economy value in § 600.510.

(2) Any running change identified by paragraph (a) of this section approved on or after that date, must be submitted according to paragraph (b) (2) of this section.

**§ 600.508-78 Addition of a base level—data requirements.**

(a) Any manufacturer who adds a base level to his product line at any time after the preliminary determination of his average fuel economy value in § 600.506, shall submit in accordance with the requirements of § 600.207, fuel economy and sales projection data for such base level.

(b) If a new base level being added has a sales fraction of 0.0100 or greater (as defined in § 600.506(b) (2)) using sales updated as of the date of receipt of approval to add the base level, the manufacturer shall:

(1) Submit to the Administrator the minimum data required for that base level in accordance with § 600.506(c), and then

(2) Recalculate and submit to the Administrator fuel economy values in accordance with procedures in § 600.506 except that all fuel economy data approved by the Administrator to date shall be used.

(c) If the total projected sales, updated as of the date of approval to add the latest base level, of all base levels added since the initial calculation in § 600.506 is equal to a sales fraction of 0.0300 or greater (as defined in § 600.506 (b) (4)), the manufacturer shall recalculate his average as in paragraph (b) (2).

(d) Any manufacturer required under paragraph (b) or (c) to perform a recalculation may be required by the Administrator to supply any additional data required under § 600.507 regardless of any exemption granted under § 600.507(a), based upon the results of that recalculation.

**§ 600.509-78 Voluntary submission of additional data.**

(a) The manufacturer may, at his option, submit data in addition to the data required by the Administrator.

(1) Additional fuel economy data may be submitted by the manufacturer for any vehicle configuration which is to be tested as required in § 600.506 or § 600.507 or for which fuel economy data were previously submitted under paragraph (a) (2) of this section.

(2) Within a base level, additional fuel economy data may be submitted by the manufacturer for any vehicle configuration which is not required to be tested by

§ 600.506 or § 600.507. Additional data which is submitted within a base level after the calculation of the manufacturer's preliminary average fuel economy must be submitted in rank order such that data is first submitted for all configurations with a higher sales fraction (as defined in § 600.506(b) (2)).

**§ 600.510-78 Determination of average fuel economy.**

(a) For each model year, the manufacturer shall submit to the Administrator a report, known as the model year report, containing all information necessary for the calculation of the manufacturer's average fuel economy.

(1) The model year report shall be submitted no later than 60 days after the report required in § 86.078-37 for the final production quarter.

(2) The Administrator may waive the requirement that the model year report be submitted within 60 days after the final quarterly production report. Based upon a request by the manufacturer, if the Administrator determines that 60 days is insufficient time for the manufacturer to provide all additional data required as determined in either § 600.506, 600.507, or 600.508, the Administrator shall establish a date by which the model year report must be submitted.

(3) The model year report must be in writing, signed by an authorized representative of the manufacturer and include the following information:

(i) All fuel economy data used in the preliminary calculation and subsequently required by the Administrator either under §§ 600.506, 600.507, or 600.508.

(ii) All fuel economy data for certification vehicles.

(iii) Any additional fuel economy data submitted by the manufacturer under § 600.509.

(iv) A fuel economy value for each model type for the manufacturer's product line calculated according to paragraph (d).

(v) The manufacturer's average fuel economy value calculated according to paragraph (e) of this section.

(vi) A listing of both domestically and non-domestically produced car lines as determined in § 600.511 and the cost information upon which the determination was made.

(vii) Passenger car production data verified by an independent audit as required by § 600.512.

(b) The fuel economy data utilized in the calculation of the manufacturer's average fuel economy under this subpart is the combined fuel economy value calculated according to § 600.206 for each vehicle configuration for which data has been submitted under paragraph (a) (3) (i), (ii), (iii) of this section.

(c) A fuel economy value for each base level is calculated according to § 600.207 with the exception that actual passenger automobile production data, as required by this subpart, is used instead of sales projections.

(d) A fuel economy value for each model type is calculated according to § 600.207 with the exception that:

(1) Annual passenger automobile production data, as required by this subpart, will be used instead of sales projections.

(2) The fuel economy value of diesel-powered model types will be multiplied by the factor 0.96 to convert gallons of diesel fuel to equivalent gallons of gasoline.

(3) The fuel economy value will be rounded to the nearest 0.0001 mpg.

(e) Average fuel economy will be determined separately for domestically produced and non-domestically produced passenger automobiles and is calculated by dividing:

(1) The total number of passenger automobiles produced in a given model year by a manufacturer, by

(2) A sum of terms, each term of which corresponds to a model type and is a fraction determined by dividing

(i) The number of passenger automobiles of a given model type produced by the manufacturer in the model year, by

(ii) The fuel economy calculated for the model type in accordance with paragraph (d) of this section.

(f) Any reference in this subpart to automobiles produced by a manufacturer shall be deemed to include all automobiles manufactured by persons who control, are controlled by, or are under common control with such manufacturer except those vehicles excluded by § 600.511.

#### § 600.511-78 Determination of domestic production.

(a) In calculating average fuel economy under § 600.510, the Administrator will separate the total number of passenger automobiles produced by a manufacturer into the following two categories:

(1) Passenger automobiles which are domestically produced by the manufacturer plus passenger automobiles which are within the includable base import volume of the manufacturer.

(2) Passenger automobiles which are not domestically produced by the manufacturer, are imported by the manufacturer, and are not within the includable base import volume of the manufacturer.

(b) The Administrator will calculate the average fuel economy of each separate category, and, for purposes of this subpart, each category will be treated as if produced by a separate manufacturer.

(c) For purposes of this section:

(1) The term "includable base import volume," with respect to any manufacturer, is the number of passenger automobiles which is the lesser of

(i) The manufacturer's base import volume or

(ii) The number of passenger automobiles calculated by multiplying

(A) The quotient obtained by dividing the manufacturer's base import volume by the manufacturer's base production volume, times

(B) The total number of passenger automobiles produced by the manufacturer during such model year.

(2) The term "base import volume" means one-half the sum of:

(i) The total number of passenger automobiles which were not domestically produced by the manufacturer during the 1974 model year and which were imported by the manufacturer during the 1974 model year, plus

(ii) 133 percent of the total number of passenger automobiles which were not domestically produced by the manufacturer during the first 9 months of model year 1975 and which were imported by the manufacturer during that 9-month period.

(3) The term "base production volume" means one-half of the sum of

(i) The total number of passenger automobiles produced by the manufacturer during model year 1974 plus

(ii) 133 percent of the total number of passenger automobiles produced by the manufacturer during the first 9 months of model year 1975.

(d) For purposes of paragraphs (c) (2) and (c) (3) of this section, any passenger automobile imported during model year 1976, but prior to July 1, 1975, will be deemed to have been produced (and imported) during the first 9 months of model year 1975.

(e) An automobile shall be considered domestically produced in any model year if it is included within a domestically produced car line (car line includes station wagons for purposes of this paragraph), unless the assembly of such automobile is completed in Canada and such automobile is not imported into the United States prior to the expiration of 30 days following the end of the model year. For purposes of this paragraph, a car line will be considered domestically produced if the following ratio is less than 0.25:

(1) The sum of the declared value, as defined in § 600.502, of all of the imported components installed or included on automobiles produced within such a car line within a given model year plus the cost of transportation and insuring such components to the United States or Canadian port of entry but exclusive of any customs duty, divided by

(2) The cost of production, as defined in § 600.502, of automobiles within such car line.

(f) If it is determined by the Administrator at some date later than the date of entry that the declared value of such imported components did not represent fair market value at the date of entry, through U.S. Bureau of Customs appraisals, the Administrator may review the determination made pursuant to paragraph (e) of this section as to whether the pertinent car lines which utilize such components were correctly included within the manufacturer's domestically-produced or foreign-produced fleets. If such a determination was in error due to misrepresentation of the valuation of imported components at the date of entry, the Administrator may recalculate the manufacturer's average for the affected model year, according to § 600.510, to reflect the correct valuation of such imported components in each affected car line.

(g) For purposes of calculations under this paragraph with respect to automobiles manufactured during any model year, an average exchange rate for the country of origin of each imported component shall be used that is calculated by taking the mean of the exchange rates in effect at the end of each quarter set by the Federal Reserve Bank of New York for twelve calendar quarters prior to and including the calendar quarter ending just prior to one year before the public introduction date of such model year. Such rate, once calculated, shall be in effect for the duration of the model year. Upon petition of a manufacturer, the Administrator may permit the use of a different exchange rate where appropriate and necessary.

(h) Components shall be considered imported unless they are either:

(1) Wholly the growth, product or manufacture of the United States and/or Canada, or

(2) Substantially transformed in the United States or Canada into a new and different article of commerce.

(i) The fuel economy of each passenger automobile which is imported by a manufacturer and which is not domestically produced by the manufacturer will be deemed to be equal to the average fuel economy value determined by harmonically averaging, according to the number of passenger automobiles imported, the fuel economy of all passenger automobiles which are imported by the manufacturer and which are not domestically produced by the manufacturer.

#### § 600.511-80 Determination of domestic production.

(a) In calculating average fuel economy under § 600.510 the Administrator shall separate the total number of passenger automobiles produced by a manufacturer into the following two categories:

(1) Passenger automobiles which are domestically produced by the manufacturer.

(2) Passenger automobiles which are not domestically produced by the manufacturer.

(b) The Administrator shall calculate the average fuel economy of each separate category, and, for purposes of this subpart, each category shall be treated as if produced by a separate manufacturer.

(c) An automobile shall be considered domestically produced in any model year if it is included within a domestically produced car line (car line includes station wagons for purposes of this paragraph), unless the assembly of such automobile is completed in Canada and such automobile is not imported into the United States prior to the expiration of 30 days following the end of the model year. For purposes of this paragraph, a car line will be considered domestically produced if the following ratio is less than 0.25:

(1) The sum of the declared value, as defined in § 600.502, of all of the imported

components to be installed or included on automobiles within such car line plus the cost of transportation and insuring such components to the United States or Canadian port of entry but exclusive of any customs duty, divided by

(2) The cost of production, as defined in § 600.502, of automobiles.

(d) If it is determined by the Administrator at some date later than the date of entry that the declared value of such imported components did not represent fair market value at the date of entry, through U.S. Bureau of Customs appraisal, the Administrator may review the determination made pursuant to paragraph (c) of this section as to whether the pertinent car lines which utilize such components were correctly included with the manufacturer's domestically-produced or foreign-produced fleets. If such a determination was in error due to misrepresentation of the valuation of imported components at the date of entry, the Administrator may recalculate the manufacturer's average fuel economy for the affected model year, according to § 600.510, to reflect the correct valuation of such imported components in each affected car line.

(e) For purposes of calculations under this section with respect to automobiles manufactured during any model year, an average exchange rate for the country of origin of each imported component shall be used that is calculated by taking the mean of the exchange rates in effect at the end of each quarter set by the Federal Reserve Bank of New York for twelve calendar quarters prior to and including the calendar quarter ending just prior to one year before the public introduction of such model year. Such rate, once calculated, shall be in effect for the duration of the model year. Upon petition of a manufacturer, the Administrator may permit the use of a different exchange rate where appropriate and necessary.

(f) Components shall be considered imported unless they are either:

(1) Wholly the growth, product or manufacture of the United States and/or Canada; or

(2) Substantially transformed in the United States or Canada into a new and different article of commerce.

(g) The fuel economy of each passenger automobile which is imported by a manufacturer and which is not domes-

tically produced by the manufacturer will be deemed to be equal to the average fuel economy value determined by harmonically averaging, according to the number of passenger automobiles imported, the fuel economy of all passenger automobiles which are imported by the manufacturer and which are not domestically produced by the manufacturer.

#### § 600.512 Independent audit of production data.

(a) Annual passenger automobile production data, as required by § 600.510(a)(3) must be audited by an independent accountant who will report on its accuracy.

(b) The Administrator will not recognize any person as an accountant who is not duly registered in good standing as such under the laws of the place of his residence or principal office.

(1) The Administrator will not recognize any accountant as independent:

(i) who is not in fact independent with respect to any manufacturer or any of its parents, entities, subsidiaries or other affiliates or,

(ii) who, during the period of his professional engagement to examine the production data being reported on or at the date of his report he or his firm or a member thereof had, or was committed to acquire, any direct financial interest in the manufacturer or any of its parents, entities, subsidiaries or other affiliates or,

(iii) who, during the period of his professional engagement to examine the production data being reported on, at the date of his report or during the period covered by the production data, he or his firm or a member thereof was connected as a promoter, underwriter, voting trustee, director, officer or employee of any manufacturer except that a firm will be deemed independent in regard to a particular manufacturer if a former officer or employee of such manufacturer is employed by the firm and such individual has completely disassociated himself from the manufacturer and its affiliates and does not participate in auditing production data of the manufacturer or its affiliates covering any period of his employment by the manufacturer.

(2) For the purposes of this subpart the term "member" means all partners in the firm and all professional employees participating in the audit or located in an office of the firm participating in a significant portion of the audit.

RULES AND REGULATIONS

APPENDIX I.—HIGHWAY FUEL ECONOMY DRIVING SCHEDULE

\*\*\* SPEED (MPH) VS TIME (SEC) \*\*\*

SEC	MPH	SEC	MPH	SEC	MPH	SEC	MPH	SEC	MPH	SEC	MPH	SEC	MPH	SEC	MPH
0	SAMPLE ON	50	38.6	100	46.5	150	44.1	200	43.4	250	43.0	300	33.4	350	59.0
1	0.0	51	39.3	101	46.9	151	44.3	201	43.2	251	43.0	301	35.0	351	58.9
2	0.0	52	40.0	102	40.1	152	44.4	202	43.2	252	44.0	302	37.5	352	58.8
3	2.0	53	40.7	103	49.2	153	44.6	203	43.1	253	43.1	303	39.1	353	58.6
4	4.0	54	41.4	104	49.1	154	44.7	204	43.0	254	43.2	304	40.8	354	58.4
5	6.1	55	42.2	105	49.1	155	44.9	205	43.0	255	43.2	305	41.1	355	58.2
6	11.3	56	42.9	106	49.0	156	45.2	206	43.1	256	43.1	306	41.8	356	58.1
7	14.5	57	43.5	107	49.0	157	45.7	207	43.4	257	43.0	307	42.4	357	58.0
8	17.3	58	44.0	108	49.1	158	45.9	208	43.9	258	43.9	308	42.8	358	57.9
9	19.6	59	44.3	109	49.2	159	46.3	209	44.0	259	43.1	309	43.3	359	57.8
10	21.8	60	44.5	110	49.3	160	46.8	210	43.5	260	43.1	310	43.8	360	57.4
11	24.0	61	44.9	111	49.4	161	46.9	211	42.6	261	43.1	311	44.3	361	57.2
12	25.8	62	44.9	112	49.5	162	47.0	212	41.5	262	43.1	312	44.7	362	57.1
13	27.1	63	45.0	113	49.5	163	47.1	213	40.7	263	43.1	313	45.0	363	57.0
14	28.0	64	45.1	114	49.5	164	47.6	214	40.0	264	43.0	314	45.2	364	57.0
15	29.8	65	45.4	115	49.4	165	47.9	215	40.0	265	43.9	315	45.4	365	56.9
16	30.0	66	45.7	116	49.1	166	48.0	216	40.3	266	43.2	316	45.5	366	56.9
17	30.7	67	46.0	117	48.9	167	48.0	217	41.0	267	47.7	317	45.8	367	56.9
18	31.5	68	46.3	118	48.6	168	47.9	218	42.0	268	47.5	318	46.0	368	57.0
19	32.2	69	46.5	119	48.4	169	47.6	219	42.9	269	47.2	319	46.1	369	57.0
20	32.9	70	46.8	120	48.1	170	47.3	220	43.1	270	46.7	320	46.5	370	57.0
21	33.5	71	46.9	121	47.7	171	46.7	221	43.2	271	46.2	321	46.8	371	57.0
22	34.1	72	47.0	122	47.4	172	46.2	222	43.4	272	46.0	322	47.1	372	57.0
23	34.6	73	47.1	123	47.3	173	45.9	223	42.9	273	45.8	323	47.2	373	57.0
24	34.9	74	47.2	124	47.5	174	45.7	224	44.3	274	45.4	324	47.4	374	57.0
25	35.1	75	47.3	125	47.8	175	45.5	225	44.7	275	45.4	325	49.0	375	57.0
26	35.7	76	47.2	126	47.9	176	45.4	226	45.1	276	45.2	326	49.7	376	57.0
27	35.9	77	47.1	127	48.0	177	45.3	227	45.0	277	45.0	327	50.3	377	56.9
28	35.8	78	47.0	128	47.9	178	45.0	228	45.0	278	44.7	328	51.0	378	56.8
29	35.3	79	46.9	129	47.9	179	44.0	229	45.5	279	44.5	329	51.7	379	56.5
30	34.9	80	46.9	130	47.9	180	43.1	230	46.9	280	44.2	330	52.4	380	56.2
31	34.5	81	46.9	131	48.0	181	42.2	231	47.2	281	42.5	331	53.1	381	56.0
32	34.0	82	47.0	132	48.0	182	41.5	232	47.4	282	42.8	332	53.8	382	56.0
33	34.8	83	47.1	133	48.0	183	41.5	233	47.5	283	42.0	333	54.5	383	56.1
34	35.1	84	47.1	134	47.9	184	42.1	234	47.3	284	40.1	334	55.2	384	56.1
35	35.7	85	47.2	135	47.3	185	42.9	235	47.2	285	38.6	335	55.8	385	56.4
36	36.1	86	47.1	136	46.8	186	43.8	236	47.2	286	37.9	336	56.4	386	56.7
37	36.2	87	47.0	137	43.3	187	43.9	237	47.2	287	35.8	337	56.9	387	56.9
38	36.5	88	46.9	138	43.2	188	43.6	238	47.1	288	34.1	338	57.8	388	57.1
39	36.7	89	46.5	139	39.5	189	43.3	239	47.0	289	34.0	339	57.1	389	57.3
40	36.8	90	46.3	140	39.2	190	43.0	240	47.0	290	33.3	340	57.3	390	57.4
41	37.8	91	46.2	141	39.0	191	43.1	241	46.9	291	32.5	341	57.6	391	57.4
42	37.8	92	46.3	142	39.0	192	43.5	242	46.8	292	31.7	342	57.8	392	57.2
43	37.8	93	46.5	143	39.1	193	43.9	243	46.8	293	30.6	343	58.0	393	57.0
44	37.8	94	46.9	144	39.5	194	44.3	244	47.0	294	29.6	344	58.1	394	56.9
45	37.8	95	47.1	145	40.1	195	44.6	245	47.2	295	28.6	345	58.4	395	56.6
46	37.8	96	47.6	146	41.0	196	44.9	246	47.3	296	28.4	346	58.7	396	56.3
47	37.1	97	47.7	147	42.0	197	44.8	247	47.9	297	28.6	347	58.8	397	56.1
48	37.2	98	48.0	148	43.1	198	44.9	248	48.0	298	28.5	348	58.9	398	56.4
49	37.6	99	48.2	149	43.7	199	43.9	249	48.0	299	21.4	349	59.0	399	56.7
500	57.1	459	58.2	500	54.7	550	55.8	600	48.3	650	50.2	700	56.2	750	76.8
461	57.5	451	58.1	501	54.6	551	55.8	601	48.0	651	50.7	701	56.5	751	76.5
462	57.8	452	58.0	502	54.4	552	55.4	602	47.9	652	51.1	702	56.8	752	76.5
463	58.0	453	58.0	503	54.3	553	55.2	603	47.8	653	51.7	703	57.0	753	76.4
464	58.0	454	58.0	504	54.3	554	55.1	604	47.7	654	52.2	704	57.5	754	76.4
465	58.0	455	58.0	505	54.2	555	55.1	605	47.6	655	52.8	705	57.9	755	76.4
466	58.0	456	58.0	506	54.1	556	54.9	606	48.3	656	52.1	706	58.1	756	76.4
467	58.0	457	58.0	507	54.1	557	54.6	607	49.0	657	51.5	707	58.1	757	76.4
468	58.0	458	57.9	508	54.1	558	54.6	608	49.1	658	51.1	708	58.4	758	76.4
469	57.9	459	57.9	509	54.0	559	54.2	609	49.1	659	51.0	709	58.5	759	76.4
470	57.8	460	58.0	510	54.0	560	54.1	610	48.9	660	51.0	710	58.7	760	76.4
471	57.7	461	58.1	511	54.0	561	54.0	611	48.9	661	51.1	711	58.9	761	76.4
472	57.7	462	58.1	512	54.0	562	54.4	612	48.1	662	51.4	712	59.0	762	76.4
473	57.8	463	58.2	513	54.0	563	54.3	613	48.2	663	51.7	713	57.3	763	76.4
474	57.9	464	58.3	514	54.0	564	54.1	614	48.1	664	52.0	714	57.7	764	76.4
475	58.0	465	58.3	515	54.0	565	54.0	615	48.1	665	52.2	715	58.2	765	SAMPLE OFF
476	58.1	466	58.3	516	54.0	566	54.0	616	48.2	666	52.5	716	58.8		
477	58.4	467	58.2	517	54.1	567	53.9	617	48.9	667	52.3	717	59.1		
478	58.9	468	58.1	518	54.2	568	54.2	618	47.8	668	52.7	718	59.2		
479	59.1	469	58.0	519	54.5	569	54.1	619	48.5	669	52.6	719	59.1		
480	59.4	470	58.8	520	54.8	570	54.0	620	49.7	670	52.3	720	59.8		
481	59.8	471	59.2	521	54.9	571	54.0	621	50.6	671	52.3	721	59.5		
482	59.9	472	57.1	522	54.0	572	54.0	622	51.5	672	52.4	722	59.1		
483	59.9	473	57.0	523	54.1	573	54.0	623	52.2	673	52.5	723	57.7		
484	59.8	474	56.6	524	54.2	574	54.1	624	52.7	674	52.7	724	57.3		
485	59.6	475	56.1	525	54.2	575	54.0	625	53.0	675	52.9	725	57.1		
486	59.4	476	56.0	526	54.3	576	54.0	626	53.6	676	53.4	726	56.8		
487	59.2	477	55.8	527	54.4	577	54.0	627	54.0	677	53.8	727	56.5		
488	59.1	478	55.5	528	54.5	578	54.0	628	54.1	678	54.1	728	56.2		
489	59.0	479	55.2	529	54.6	579	54.4	629	54.9	679	54.1	729	55.5		
490	58.9	480	55.1	530	54.7	580	54.1	630	54.7	680	54.0	730	54.6		
491	58.7	481	55.0	531	54.6	581	54.7	631	54.1	681	54.1	731	54.1		
492	58.6	482	54.9	532	54.9	582	54.1	632	54.4	682	49.8	732	53.7		
493	58.5	483	54.9	533	54.0	583	44.9	633	54.9	683	49.7	733	53.2		
494	58.4	484	54.8	534	54.0	584	45.2	634	55.0	684	49.6	734	52.9		
495	58.4	485	54.9	535	54.0	585	45.2	635	54.9	685	49.5	735	52.5		
496	58.3	486	54.9	536	54.0	586	45.2	636	54.8	686	49.5	736	52.0		
497	58.2	487	54.9	537	54.0	587	45.1	637	54						

SEC	KPH														
400	91.4	450	93.6	500	94.0	550	89.7	600	77.6	650	89.7	700	87.2	750	43.1
401	92.5	451	93.5	501	87.8	551	87.4	601	77.2	651	81.5	701	87.7	751	39.4
402	93.0	452	93.4	502	87.5	552	89.1	602	77.0	652	82.2	702	88.1	752	34.5
403	93.3	453	93.3	503	87.4	553	88.8	603	76.8	653	83.2	703	89.5	753	31.3
404	93.3	454	93.3	504	87.3	554	88.6	604	76.7	654	83.9	704	89.3	754	27.9
405	93.3	455	93.3	505	87.2	555	88.4	605	77.0	655	84.4	705	89.9	755	24.3
406	93.3	456	93.3	506	87.1	556	88.3	606	77.7	656	83.8	706	90.2	756	20.0
407	93.3	457	93.3	507	87.0	557	87.9	607	76.8	657	83.0	707	90.4	757	16.6
408	93.2	458	93.2	508	87.0	558	87.5	608	76.9	658	82.2	708	90.4	758	11.2
409	93.1	459	93.2	509	86.9	559	87.2	609	76.9	659	81.1	709	90.9	759	8.0
410	92.9	460	93.2	510	86.9	560	87.0	610	76.6	660	81.1	710	91.2	760	5.3
411	92.8	461	93.4	511	86.9	561	86.5	611	77.1	661	81.2	711	91.5	761	3.2
412	92.8	462	93.5	512	86.9	562	86.9	612	76.7	662	81.6	712	91.7	762	1.0
413	92.9	463	93.6	513	86.9	563	85.7	613	76.2	663	81.1	713	92.2	763	0.0
414	93.1	464	93.7	514	86.9	564	85.4	614	76.1	664	81.5	714	92.9	764	0.0
415	93.3	465	93.8	515	86.9	565	85.1	615	76.1	665	81.0	715	93.6	765	SAMPLE OFF
416	93.5	466	93.8	516	86.9	566	84.7	616	76.3	666	80.9	716	94.8		
417	94.0	467	93.6	517	87.0	567	84.3	617	75.4	667	80.9	717	95.1		MON APR 22/74
418	94.0	468	93.6	518	87.2	568	84.0	618	76.9	668	80.8	718	95.2		
419	95.1	469	93.3	519	87.6	569	83.7	619	76.5	669	80.5	719	95.0		
420	95.5	470	93.0	520	86.1	570	83.0	620	68.0	670	80.1	720	94.6		
421	96.2	471	92.5	521	84.3	571	83.6	621	68.3	671	80.1	721	94.1		
422	96.3	472	91.8	522	84.5	572	83.6	622	68.8	672	80.2	722	93.5		
423	96.3	473	91.6	523	84.6	573	83.7	623	68.9	673	80.4	723	92.8		
424	96.2	474	91.1	524	85.7	574	83.8	624	69.1	674	80.8	724	92.2		
425	95.9	475	90.2	525	86.8	575	83.7	625	68.2	675	80.7	725	91.6		
426	95.5	476	90.1	526	88.9	576	83.8	626	68.2	676	80.3	726	91.4		
427	95.2	477	89.6	527	89.2	577	83.5	627	68.6	677	80.9	727	90.9		
428	95.0	478	89.3	528	89.3	578	83.1	628	67.0	678	80.2	728	90.3		
429	94.9	479	88.8	529	89.4	579	82.9	629	67.9	679	80.2	729	89.8		
430	94.7	480	88.6	530	89.6	580	82.2	630	69.8	680	81.2	730	87.5		
431	94.4	481	88.5	531	89.8	581	81.5	631	69.6	681	81.5	731	87.1		
432	94.2	482	88.4	532	89.9	582	80.8	632	69.2	682	80.1	732	86.3		
433	94.1	483	88.3	533	89.9	583	80.1	633	69.1	683	80.1	733	85.6		
434	94.0	484	88.3	534	90.1	584	79.2	634	68.5	684	79.7	734	85.0		
435	93.9	485	88.3	535	90.1	585	78.4	635	67.6	685	79.6	735	84.4		
436	93.8	486	88.3	536	90.1	586	77.5	636	66.3	686	79.6	736	83.6		
437	93.6	487	88.3	537	90.1	587	77.3	637	66.4	687	79.9	737	82.6		
438	93.4	488	88.4	538	90.1	588	77.2	638	66.7	688	80.4	738	81.2		
439	93.3	489	88.5	539	90.1	589	77.2	639	77.5	689	80.7	739	79.6		
440	93.2	490	88.5	540	90.1	590	77.3	640	76.8	690	81.2	740	78.0		
441	93.1	491	88.5	541	90.1	591	77.8	641	76.3	691	82.2	741	76.4		
442	93.1	492	88.5	542	90.1	592	78.6	642	76.0	692	82.9	742	75.3		
443	93.1	493	88.5	543	90.1	593	78.9	643	76.0	693	83.4	743	73.3		
444	93.2	494	88.6	544	90.1	594	79.0	644	76.5	694	83.6	744	71.0		
445	93.3	495	88.6	545	90.1	595	79.0	645	75.3	695	83.7	745	68.3		
446	93.4	496	88.5	546	90.0	596	78.9	646	76.4	696	84.2	746	63.1		
447	93.5	497	88.4	547	89.9	597	78.8	647	77.5	697	85.1	747	57.8		
448	93.6	498	88.3	548	89.9	598	78.6	648	78.5	698	85.7	748	52.5		
449	93.6	499	88.1	549	89.9	599	78.1	649	79.6	699	86.4	749	47.2		

APPENDIX II.—SAMPLE TEST VALUE CALCULATIONS

CO=6.74 grams/mile  
CO<sub>2</sub>=785 grams/mile

(a) Assume that a gasoline-fueled vehicle was tested by the Federal Emission Test Procedure and the following results were calculated:

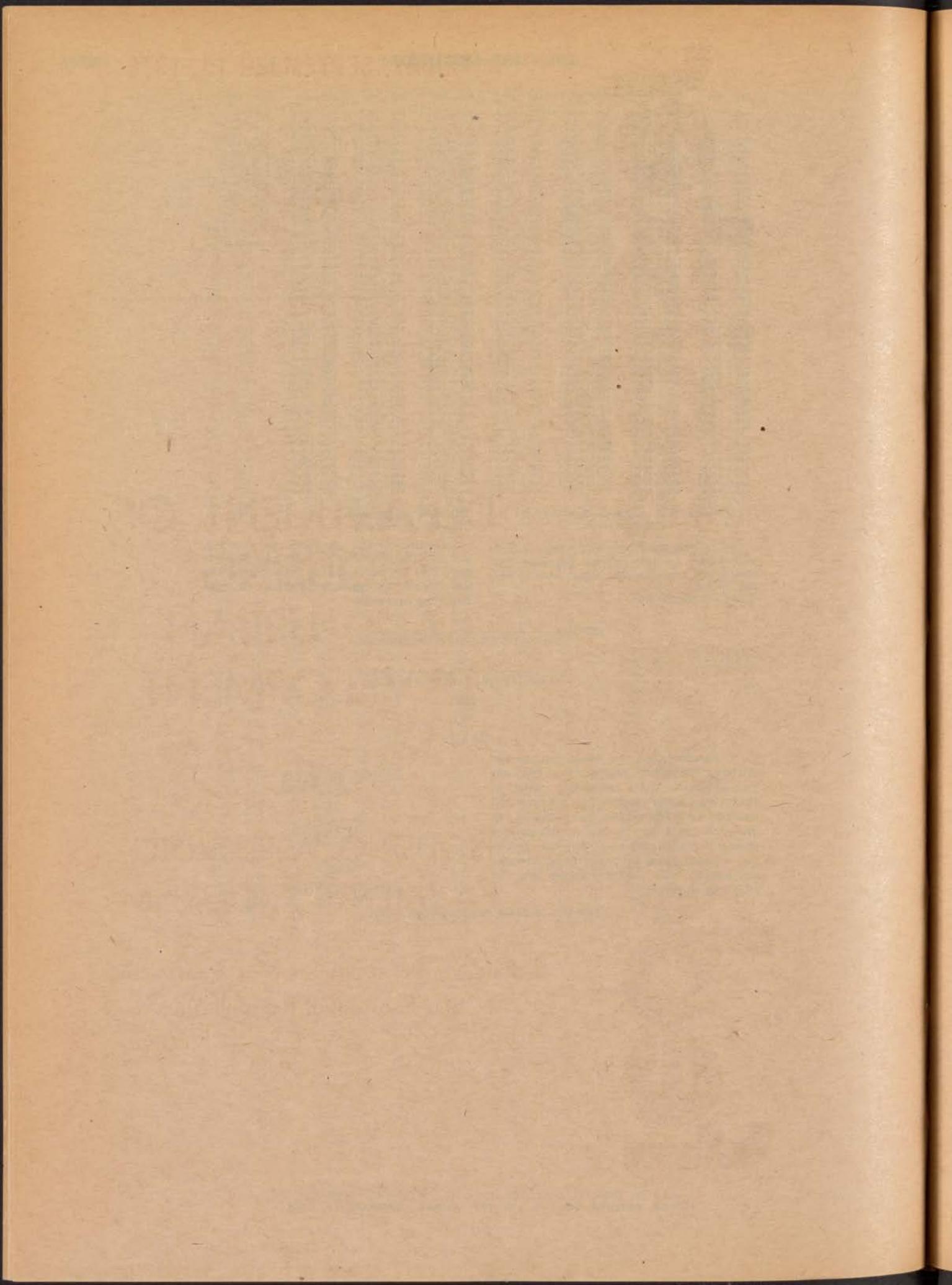
HC=1.03 grams/mile

According to the procedure in § 600.113, the city fuel economy or MPG<sub>c</sub> for the vehicle may be calculated by substituting the HC, CO, and CO<sub>2</sub> gram/mile values into the following equation.

$$\begin{aligned}
 \text{MPG}_c &= \frac{2421}{(0.866 \times \text{HC}) + (0.429 \times \text{CO}) + (0.273 \times \text{CO}_2)} \\
 &= \frac{2421}{(0.866 \times 1.03) + (0.429 \times 6.74) + (0.273 \times 785)} \\
 &= \frac{2421}{218.1} \\
 &= 11.1 \text{ MPG}
 \end{aligned}$$

(b) Assume that the same vehicle was tested by the Federal Highway Fuel Economy Test Procedure and a calculation similar to that shown in (a) resulted in a highway fuel economy or MPG<sub>h</sub> of 18.6. According to the procedure in § 600.113, the combined fuel economy (called MPG<sub>c/h</sub>) for the vehicle may be calculated by substituting the city and highway fuel economy values into the following equation:

$$\begin{aligned}
 \text{MPG}_{c/h} &= \frac{1}{\frac{0.55}{\text{MPG}_c} + \frac{0.45}{\text{MPG}_h}} \\
 &= \frac{1}{\frac{0.55}{11.1} + \frac{0.45}{18.6}} \\
 &= \frac{1}{0.0737} \\
 \text{MPG}_{c/h} &= 13.6 \text{ MPG}
 \end{aligned}$$



# federad register

FRIDAY, SEPTEMBER 10, 1976



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PART V:

## DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT



### HOUSING ASSISTANCE PAYMENTS PROGRAM

Fair Market Rents for New Construction  
and Substantial Rehabilitation

Title 24—Housing and Urban Development  
 CHAPTER VIII—LOW INCOME HOUSING,  
 DEPARTMENT OF HOUSING AND  
 URBAN DEVELOPMENT

[Docket No. R-76-311]

PART 888—SECTION 8 HOUSING ASSISTANCE PAYMENTS PROGRAM, FAIR MARKET RENTS AND CONTRACT RENT AUTOMATIC ANNUAL ADJUSTMENT FACTORS

Fair Market Rents for New Construction and Substantial Rehabilitation

Notice was given on March 1, 1976, at 41 FR 8882 that the Department of Housing and Urban Development (HUD) was proposing to amend Title 24 of the Code of Federal Regulations incorporating in Part 888, Subpart A, a revised Schedule A, "Fair Market Rents for New Construction and Substantial Rehabilitation (including Housing Finance and Development Agencies Program)" for all market areas.

A revised Schedule A for all market areas was published for effect on April 6, 1976, at 41 FR 14662 with a statement that, "Comments received after March 27, 1976, will be carefully considered and, if warranted, additional amendments will be published."

Since March 27, 1976, HUD has received seventeen additional comments in response to the March 1, 1976, publication. Most of these comments stated that the proposed Schedule A Fair Market Rents were too low for a specific market area or areas. All comments were seriously considered, and as a result, the Schedule A rents for twenty-six additional market areas are now being modified.

A Finding of Inapplicability respecting the National Environmental Policy Act of 1969 has been made in accordance with HUD procedures. A copy of this Finding of Inapplicability will be available for public inspection during regular business hours at the office of the Rules Docket Clerk, Room 10141, Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, D.C.

Accordingly, Schedule A of Part 888, Subpart A, is amended for certain market areas as set forth below (see 41 FR 14668, 14671, 14675-14680, 14697, 14698, 14707, and 14716 for the rents prior to the effective date of this amendment).

(Sec. 7(d) Department of HUD Act (42 U.S.C. 3535(d).))

Effective date. These amendments are effective on September 10, 1976.

JAMES L. YOUNG,  
 Assistant Secretary for Housing,  
 Federal Housing Commissioner.

SCHEDULE A—FAIR MARKET RENTS FOR NEW CONSTRUCTION AND SUBSTANTIAL REHABILITATION (INCLUDING HOUSING FINANCE AND DEVELOPMENT AGENCIES PROGRAM.)

These Fair Market Rents have been trended ahead two years to allow time for processing and construction of proposed new construction and substantial rehabilitation rental projects.

NOTE: The Fair Market Rents for (1) dwelling units designed for the elderly or handicapped are those for the appropriate size units, not to exceed 2-Bedroom, multiplied by 1.05 rounded to the next higher whole dollar, (2) congregate housing dwelling units are the same as for non-congregate units and (3) single room occupancy dwelling units are those for 0-Bedroom units of the same type.

RULES AND REGULATIONS

INSURING OFFICE WILMINGTON, DEL. REGION III - PHILADELPHIA

MARKET AREA	STRUCTURE TYPE	NUMBER OF BEDROOMS				
		0	1	2	3	4 or more
WILMINGTON	DETACHED	-	-	320	385	402
	SEMI-DETACHED/ROW	201	219	290	360	380
	WALKUP	195	212	272	347	-
	ELEVATOR	233	285	368	-	-

OFFICE RICHMOND, VA. REGION III-PHILADELPHIA

MARKET AREA	STRUCTURE TYPE	NUMBER OF BEDROOMS				
		0	1	2	3	4 or more
WARRENTON	DETACHED	-	-	266	290	363
	SEMI-DETACHED/ROW	-	212	249	287	326
	WALKUP	160	193	227	278	327
	ELEVATOR	181	222	257	-	-
BRISTOL	DETACHED	-	-	230	290	334
	SEMI-DETACHED/ROW	-	193	220	280	318
	WALKUP	167	183	211	265	303
	ELEVATOR	210	235	290	-	-
HARRISONBURG	DETACHED	-	-	266	290	363
	SEMI-DETACHED/ROW	-	212	249	287	326
	WALKUP	160	193	227	278	327
	ELEVATOR	181	222	257	-	-

AREA OFFICE NEWARK, NEW JERSEY REGION II - NEW YORK

MARKET AREA	STRUCTURE TYPE	NUMBER OF BEDROOMS				
		0	1	2	3	4 or more
NEWARK	DETACHED	-	-	485	548	597
	SEMI-DETACHED/ROW	-	343	436	492	538
	WALKUP	300	321	407	460	503
	ELEVATOR	366	392	496	573	616
ASBURY PARK	DETACHED	-	-	471	532	583
	SEMI-DETACHED/ROW	289	341	424	480	524
	WALKUP	271	319	397	448	490
	ELEVATOR	329	389	484	-	-
FREEHOLD	DETACHED	-	-	493	554	603
	SEMI-DETACHED/ROW	305	337	442	498	542
	WALKUP	286	315	414	465	507
	ELEVATOR	350	384	505	-	-
NORTH BERGEN	DETACHED	-	-	531	612	675
	SEMI-DETACHED/ROW	-	374	477	551	606
	WALKUP	309	349	447	514	567
	ELEVATOR	376	425	545	611	654
	DETACHED					
	SEMI-DETACHED/ROW					
	WALKUP					
	ELEVATOR					
	DETACHED					
	SEMI-DETACHED/ROW					
	WALKUP					
	ELEVATOR					

AREA OFFICE BIRMINGHAM, ALABAMA REGION IV - ATLANTA

MARKET AREA	STRUCTURE TYPE	NUMBER OF BEDROOMS				
		0	1	2	3	4 or more
TUSCALOOSA	DETACHED	-	-	282	344	377
	SEMI-DETACHED/ROW	-	193	237	307	337
	WALKUP	173	193	237	307	337
	ELEVATOR	216	241	296	-	-

INSURING OFFICE TAMPA, FLORIDA REGION IV-ATLANTA

MARKET AREA	STRUCTURE TYPE	NUMBER OF BEDROOMS				
		0	1	2	3	4 or more
TAMPA	DETACHED	-	-	290	345	380
	SEMI-DETACHED/ROW	-	230	276	344	380
	WALKUP	190	230	276	344	380
	ELEVATOR	215	240	316	-	-
ST. PETERSBURG	DETACHED	-	-	290	345	380
	SEMI-DETACHED/ROW	-	230	276	344	380
	WALKUP	190	230	276	344	380
	ELEVATOR	215	240	316	-	-
ORLANDO	DETACHED	-	-	280	361	380
	SEMI-DETACHED/ROW	-	215	272	340	360
	WALKUP	190	215	272	328	345
	ELEVATOR	215	240	316	-	-

AREA OFFICE BIRMINGHAM, ALABAMA REGION IV - ATLANTA

MARKET AREA	STRUCTURE TYPE	NUMBER OF BEDROOMS				
		0	1	2	3	4 or more
BIRMINGHAM	DETACHED	-	-	290	354	384
	SEMI-DETACHED/ROW	-	219	254	326	356
	WALKUP	173	205	245	314	342
	ELEVATOR	216	249	358	-	-
DOTHAN	DETACHED	-	-	279	317	344
	SEMI-DETACHED/ROW	-	202	248	303	333
	WALKUP	172	202	248	303	333
	ELEVATOR	228	253	310	-	-
FLORENCE	DETACHED	-	-	274	346	380
	SEMI-DETACHED/ROW	-	216	274	346	380
	WALKUP	176	196	239	299	329
	ELEVATOR	220	245	299	-	-
HUNTSVILLE	DETACHED	-	-	274	341	375
	SEMI-DETACHED/ROW	-	219	274	341	375
	WALKUP	173	208	249	286	314
	ELEVATOR	216	260	311	-	-
MOBILE	DETACHED	-	-	287	344	366
	SEMI-DETACHED/ROW	-	207	265	317	349
	WALKUP	173	200	236	317	349
	ELEVATOR	216	250	295	-	-
MONTGOMERY	DETACHED	-	-	274	358	393
	SEMI-DETACHED/ROW	-	205	260	358	393
	WALKUP	173	196	237	284	312
	ELEVATOR	216	245	296	-	-

RULES AND REGULATIONS

38701

INSURING OFFICE ALBUQUERQUE, N. M.

INSURING OFFICE DENVER, COLORADO

REGION VI- DALLAS

REGION VIII-DENVER

MARKET AREA	STRUCTURE TYPE	NUMBER OF BEDROOMS				
		0	1	2	3	4 or more
ALBUQUERQUE	DETACHED	-	-	274	335	378
	SEMI-DETACHED/ROW	200	227	253	302	358
	WALKUP	163	202	228	270	313
	ELEVATOR	205	240	303	-	-
GALLUP	DETACHED	-	-	296	352	424
	SEMI-DETACHED/ROW	222	254	283	337	403
	WALKUP	182	226	255	303	330
	ELEVATOR	208	241	304	-	-

MARKET AREA	STRUCTURE TYPE	NUMBER OF BEDROOMS				
		0	1	2	3	4 or more
COLORADO SPRINGS	DETACHED	-	-	-	-	-
	SEMI-DETACHED/ROW	-	177	200	263	295
	WALKUP	144	164	195	257	289
	ELEVATOR	174	193	224	-	-
DURANGO	DETACHED	-	-	-	-	-
	SEMI-DETACHED/ROW	185	205	240	288	308
	WALKUP	172	193	235	274	294
	ELEVATOR	178	198	240	-	-
GRAND JUNCTION	DETACHED	-	-	-	-	-
	SEMI-DETACHED/ROW	202	223	278	334	355
	WALKUP	196	220	271	328	348
	ELEVATOR	202	223	278	-	-
GREELEY	DETACHED	-	-	-	-	-
	SEMI-DETACHED/ROW	-	190	216	298	326
	WALKUP	165	180	211	294	312
	ELEVATOR	187	202	235	-	-
PUEBLO	DETACHED	-	-	-	-	-
	SEMI-DETACHED/ROW	-	183	215	278	299
	WALKUP	155	170	202	271	292
	ELEVATOR	190	204	244	-	-

INSURING OFFICE HONOLULU, HAWAII REGION IX-SAN FRANCISCO

MARKET AREA	STRUCTURE TYPE	NUMBER OF BEDROOMS				
		0	1	2	3	4 or more
TRUST TERRITORY	DETACHED	-	-	490	517	583
	SEMI-DETACHED/ROW	-	-	-	-	-
	WALKUP	-	-	-	-	-
	ELEVATOR	-	-	-	-	-

[FR. Doc. 76-26355 Filed 9-9-76; 8:45 am.]

# **federal register**

FRIDAY, SEPTEMBER 10, 1976



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PART VI:

## **DEPARTMENT OF LABOR**

**Employment Standards  
Administration**



### **MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION**

**General Wage Determination Decisions**

## DEPARTMENT OF LABOR

Employment Standards Administration  
**MINIMUM WAGES FOR FEDERAL AND  
 FEDERALLY ASSISTED CONSTRUCTION**  
 General Wage Determination Decisions

General Wage Determination Decisions of the Secretary of Labor specify, in accordance with applicable law and on the basis of information available to the Department of Labor from its study of local wage conditions and from other sources, the basic hourly wage rates and fringe benefit payments which are determined to be prevailing for the described classes of laborers and mechanics employed in construction activity of the character and in the localities specified therein.

The determinations in these decisions of such prevailing rates and fringe benefits have been made by authority of the Secretary of Labor pursuant to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Stat. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in 29 CFR 1.1 (including the statutes listed at 36 FR 306 following Secretary of Labor's Order No. 24-70) containing provisions for the payment of wages which are dependent upon determination by the Secretary of Labor under the Davis-Bacon Act; and pursuant to the provisions of Part 1 of Subtitle A of Title 29 of Code of Federal Regulations, Procedure for Predetermination of Wage Rates, (37 FR 21138) and of Secretary of Labor's Orders, 12-71 and 15-71 (36 FR 8755, 8756). The prevailing rates and fringe benefits determined in these decisions shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

Good cause is hereby found for not utilizing notice and public procedure thereon prior to the issuance of these determinations as prescribed in 5 U.S.C. 553 and not providing for delay in effective date as prescribed in that section, because the necessity to issue construction industry wage determination frequently and in large volume causes procedures to be impractical and contrary to the public interest.

General Wage Determination Decisions are effective from their date of publication in the FEDERAL REGISTER without limitation as to time and are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision together with any modi-

fications issued subsequent to its publication date shall be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable Federal prevailing wage law and 29 CFR, Part 5. The wage rates contained therein shall be the minimum paid under such contract by contractors and subcontractors on the work.

MODIFICATIONS AND SUPERSEDEAS DECISIONS TO GENERAL WAGE DETERMINATION DECISIONS

Modifications and Supersedeas Decisions to General Wage Determination Decisions are based upon information obtained concerning changes in prevailing hourly wage rates and fringe benefit payments since the decisions were issued.

The determinations of prevailing rates and fringe benefits made in the Modifications and Supersedeas Decisions have been made by authority of the Secretary of Labor pursuant to the provisions of the Davis-Bacon Act of March 3, 1931, as amended, (46 Stat. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in 29 CFR 1.1 (including the statutes listed at 36 FR 306 following Secretary of Labor's Order No. 24-70) containing provisions for the payment of wages which are dependent upon determination by the Secretary of Labor under the Davis-Bacon Act; and pursuant to the provisions of Part 1 of Subtitle A of Title 29 of Code of Federal Regulations, Procedure for Predetermination of Wage Rates, (37 FR 21138) and of Secretary of Labor's Orders 13-71 and 15-71 (36 FR 8755, 8756). The prevailing rates and fringe benefits determined in foregoing General Wage Determination Decisions, as hereby modified, and/or superseded shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged in contract work of the character and in the localities described therein.

Modifications and Supersedeas Decisions are effective from their date of publication in the FEDERAL REGISTER without limitation as to time and are to be used in accordance with the provisions of 29 CFR Parts 1 and 5.

Any person, organization, or governmental agency having an interest in the wages determined as prevailing is encouraged to submit wage rate information for consideration by the Department. Further information and self-explanatory forms for the purpose of submitting this data may be obtained by writing to the U.S. Department of Labor, Employment Standards Administration,

Office of Special Wage Standards, Division of Wage Determinations, Washington, D.C. 20210. The cause for not utilizing the rule-making procedures prescribed in 5 U.S.C. 553 has been set forth in the original General Wage Determination Decision.

NEW GENERAL WAGE DETERMINATION DECISIONS

Connecticut ----- CT76-2109  
 Kentucky ----- KY76-1096,  
 KY76-1097

MODIFICATIONS TO GENERAL WAGE DETERMINATION DECISIONS

The numbers of the decisions being modified and their dates of publication in the FEDERAL REGISTER are listed with each State.

Alabama:  
 AL75-1073 ----- Aug. 8, 1975.  
 Georgia:  
 GA76-1089 ----- Aug. 27, 1976.  
 Hawaii:  
 HI76-5081 ----- Aug. 27, 1976.  
 Iowa:  
 IA76-4092 ----- May 21, 1976.  
 IA76-4099 ----- June 18, 1976.  
 Kentucky:  
 KY76-1080 ----- July 23, 1976.  
 Nevada:  
 NV76-5074 ----- Aug. 8, 1976.  
 New Jersey:  
 NJ76-3127 ----- Feb. 27, 1976.  
 Pennsylvania:  
 PA76-3181 ----- June 18, 1976.  
 Virginia:  
 MD76-3225 ----- July 30, 1976.  
 Washington, D.C.:  
 DC76-3226 ----- July 30, 1976.

SUPERSEDEAS DECISIONS TO GENERAL WAGE DETERMINATION DECISIONS

The numbers of the decisions being superseded and their dates of publication in the FEDERAL REGISTER are listed with each State.

Supersedeas Decision numbers are in parentheses following the numbers of the decision being superseded.

Iowa:  
 IA76-4056 (IA76-4145); IA Feb. 27, 1976.  
 76-4057 (IA76-4146); IA  
 76-4058 (IA76-4147); IA  
 76-4058 (IA76-4148); IA  
 4060 (IA76-4149).  
 Nevada:  
 NV76-5069 (NV76-5083) -- July 30, 1976.  
 South Carolina:  
 SC75-1017 (SC76-1100) --- Jan. 31, 1976.  
 Utah:  
 UT76-5052 (UT76-5082) -- June 25, 1976.  
 Virginia:  
 AM-1874 (VA76-3244); AM- Aug. 20, 1971.  
 1875 (VA76-3245).

Signed at Washington, D.C., this 3d day of September 1976.

RAY J. DOLAN,  
 Assistant Administrator,  
 Wage and Hour Division.

DECISION NO. CT76-2109

STATE: Connecticut COUNTY: New Haven  
 DECISION NUMBER: CT76-2109 DATE: Date of Publication  
 DESCRIPTION OF WORK: Residential Construction Consisting of single family homes and garden type apartments up to and including 4 stories

PAID HOLIDAYS:  
 A-New Year's Day; B-Memorial Day; C-Independence Day; D-Labor Day;  
 E-Thanksgiving Day; & F-Christmas Day

FOOTNOTES:  
 a. Paid Holidays: D and Good Friday  
 b. Last 4 working hours on Christmas Eve is paid half day providing the employee has worked the five consecutive days prior to Christmas Eve.  
 c. Paid Holidays: B and D and ½ day paid holiday the Friday after Thanksgiving Day and the last working day before Christmas Day and a paid ½ day for Good Friday.  
 d. Paid Holiday: Labor Day  
 e. Paid Holidays: C, D, & E and ½ day paid holiday the Friday after Thanksgiving Day.

	Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
		H & W	Pensions	Vacation		
Bricklayers, Cement Masons, Tile Setters: Devon to the Orange Town Line and the Indian River in Milford	\$9.60	.50	.50	a	50.00p/y	
Ansonia - Derby	9.10	.50	.50			
Meriden	9.15	.50	.50			
Beacon Falls - Middlebury						
Midville - Naugatuck-Prospect-Waterbury-Marion-Wolcott-Thomaston-Woodbury	9.41	.50	.55			
Remainder of County	9.55	.50	.50			
Carpenters	6.55					
Electricians	7.39					
Ironworkers	11.10	.55	.95	b	.08	
Laborers	5.21					
Painters	5.69					
Plumbers and Steamfitters: Milford	9.39	.55	.50	.38	.01	
Ansonia-Beacon Falls-Bethany-Naugatuck-Oxford-Prospect-Seymour	10.45	.83	.70	c	.05	
Middlebury-Southbury-Waterbury-Wolcott-South Britain	9.80	.83	.70	c	.05	
Cheshire-Meriden-Wallingford-Durham-Southington	10.10	.75	.70	d	.03	
Remainder of County	9.98	.75	.70	e	.02	
Roofers: Cheshire-Meriden-Prospect-Wallingford-Waterbury	8.75	.425	.60	.45		
Remainder of County	9.25	.80	.50			
Sheet Metal Workers	10.15	.50	.66		.07	
Truck Drivers	5.44					

DECISION NO. CT76-2109  
POWER EQUIPMENT OPERATORS  
(Building construction)

Basic Hourly Rates	Fringe Benefits Payments			App. Tr.
	H & W	Pensions	Vacation	
\$10.05	.45	.90	a	.10
9.20	.45	.90	a	.10
9.95	.45	.90	a	.10
9.80	.45	.90	a	.10
9.00	.45	.90	a	.10
8.55	.45	.90	a	.10

POWER EQUIPMENT OPERATORS (Cont'd):  
Fork lift not over 4'; & Steam Jenny  
Mechanical heater  
Roller  
Dinky machine; Power pavement breaker  
Fireman (High pressure)  
Oiler  
Crane with boom, excluding jib, over 150' - \$.25 extra  
Crane with boom, excluding jib, over 200' - \$.50 extra

PAID HOLIDAYS:  
A-New Year's Day; B-Memorial Day;  
C-Independence Day; D-Labor Day;  
E-Thanksgiving Day; & F-Christmas Day

FOOTNOTE:  
a. 7 paid holidays: A through F, and Good Friday

DECISION NO. CT76-2109  
POWER EQUIPMENT OPERATORS  
(Building construction)

Basic Hourly Rates	Fringe Benefits Payments			App. Tr.
	H & W	Pensions	Vacation	
\$10.90	.45	.90	a	.10
10.80	.45	.90	a	.10
10.70	.45	.90	a	.10
10.45	.45	.90	a	.10
9.70	.45	.90	a	.10
10.25	.45	.90	a	.10
10.20	.45	.90	a	.10
10.15	.45	.90	a	.10
9.45	.45	.90	a	.10
9.35	.45	.90	a	.10

POWER EQUIPMENT OPERATORS:  
Derrick; Hoisting engineer 2 drums and over; Hoisting structural steel; Pile driver; & Setting stone  
Dragline; Fork lift - over 4' lift  
Front end loader - 7 cy. or over;  
Gradall; Hoisting engineer (all types of equipment where a drum and cable are used to hoist, pull or drag material regardless of motive power or operation);  
Koehring, scooper loader and/or hoe; Master mechanic; Shovel; & Tower crane  
Maintenance engineer  
Central mix operator; Coleman loader and screening plant or similar equipment; Combination hoe and loader over 1/4 yd.;  
Conveyors - regardless of motive power; Front end loader - 3 cy. up to 7 cy.; High pressure portable boiler; Joy drill - limited to Joy heavy weight champion or equivalent; Mucking machine; Post hole digger; Pumcrete machine; Rock boring machine; Vibratory hammer; Welder; & Well digger  
Compressor battery operator  
Asphalt spreader  
Bulldozer; Carry-all operators; Grader; & Scraper pan  
Combination hoe and loader machine;  
Concrete mixer - 5 bags or over;  
Front end loader under 3 cy.;  
Powerstone spreader  
Air and steam valve  
Compressor; Generator; Pump and Well point; Welding machine

NEW DECISION

STATE: Kentucky  
 COUNTY: \*See below  
 DATE: Date of Publication  
 DECISION NUMBER: KY76-1096  
 DESCRIPTION OF WORK: Residential construction consisting of single family homes and garden type apartments up to and including 4 stories.

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
*COUNTRIES: Boyle, Casey, Clinton Garrard, Lincoln, Pulaski, Russell, Rockcastle, and Wayne				
Air conditioning & heating mechanics				
Blocklayers & Brick masons				
Carpenters				
Cement masons				
Drywall finishers				
Drywall hangers				
Electricians				
Insulation installers				
Laborers				
Painters				
Plumbers & Pipefitters				
Roofers				
Sheet metal workers				
Soft floor layers				
Tile setters				
Truck drivers				
Welders - Rate for Craft				
POWER EQUIPMENT OPERATORS:				
Backhoe				
Bulldozer				
Front end loader				
\$3.57				
4.00				
4.17				
4.00				
4.00				
4.05				
5.00				
3.52				
3.00				
3.78				
4.44				
3.93				
3.25				
4.00				
4.00				
3.00				
4.10				
4.50				
5.00				

NEW DECISION

STATE: Kentucky  
 COUNTY: \*See below  
 DATE: Date of Publication  
 DECISION NUMBER: KY76-1097  
 DESCRIPTION OF WORK: Residential construction consisting of single family homes and garden type apartments up to and including 4 stories.

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
COUNTRIES: Clay, Estall, Jackson, Lee, Owsley, Powell, and Wolfe				
Air conditioning & heating mechanics				
Blocklayers & Brick Masons				
Carpenters				
Cement masons				
Drywall finishers				
Drywall hangers				
Electricians				
Insulation installers				
Laborers:				
Laborers				
Hod carriers				
Painters				
Plumbers & Pipefitters				
Roofers				
Sheet metal workers				
Soft floor layers				
Tile setters				
Welders - Rate for Craft				
POWER EQUIPMENT OPERATORS:				
Backhoe				
Bulldozer				
\$4.00				
4.01				
4.00				
4.00				
4.00				
4.00				
4.00				
4.00				
4.00				
2.50				
3.50				
4.00				
5.45				
3.00				
4.81				
4.00				
4.00				
5.00				
5.00				

MODIFICATIONS P. 2

Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
	H & W	Pensions	Vacation		
DECISION #IA76-4092 - Mod. #2 (41 FR 21079 - May 21, 1976) Black Hawk County (City of Waterloo and Abutting Municipalities), Iowa					
Change: Building, Water Treatment Plants & Sewage Disposal Plants Construction: Electricians: Cable Splicers Ironworkers Laborers: Group 1 Group 2 Group 3	.45 .45 10.565 .38 .38 .38	1% 1% .20 .20 .20			1% 1% .02
DECISION #IA76-4099 - Mod. #2 (41 FR 24844 - June 18, 1976) Cerro Gordo County (City of Mason City), Iowa					
Change: Building, Water Treatment Plants & Sewage Disposal Plants Construction: Bricklayers Glaziers	8.74 7.55	.50 .25			4%

MODIFICATIONS P. 1

Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
	H & W	Pensions	Vacation		
DECISION #AL75-1073 - Mod. #4 (40 FR 33580 - August 8, 1975) Montgomery County, Alabama					
OMIT: Painters Schedule as originally issued.					
ADD: Painters: Commercial Brush, roller, caulker Wall coverer (Paperhanger) Stage work, steel, sand & water blasting, special coatings Painters: Industrial Brush, roller, spray Extra hazardous work (all work above 40 feet from working plane (floor, ground, etc.), elevated water tanks, cables and pick boards, and all work of a character similar.)	\$ 6.50 6.75 7.80 7.80 8.80	.30 .30 .30 .30 .30			
DECISION #GA76-1089 - Mod. #1 (41 FR-36378 - August 27, 1976) Clayton, Cobb, Fulton, & DeKalb Counties, Georgia					
Drop: Roofers: Roofers & weatherproofers Slate, tile, & asbestos shingles Roofers' helpers	\$6.75 7.00 5.00	.30 .20 .20 .20			
Add: Roofers:	6.32				
DECISION #HI76-5081 - Mod. #1 (41 FR 36380 - August 27, 1976) Statewide, Hawaii					
Change: Fence Erectors (Chain Link) Sheet Metal Workers	\$4.70 10.05	.19 .76	.24 1.82 + .40	.10 .88	.04 .38 + .02

MODIFICATIONS P. 4

Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
	H & W	Pensions	Vacation		
\$8.40 9.45	.60 .60	.45 .45			
Decision #PA76-3181 - Mod. # 3 (41 FR 24858 - June 18, 1976) Schuylkill County, Pennsylvania Change: Painters: Commercial & Industrial Brush Steel Spray					
\$10.77 10.00 10.80 10.38 7.27	.59 .65 .65 .495 .495	.89 .53 124.80 .32 .32			.03 .05 .13 .02 .02
Decision #MD76-3225 - Mod. # 2 (41 FR 32141 - July 30, 1976) Montgomery and Prince Georges Counties, Maryland; Arlington and Fairfax Counties, Virginia; the City of Alexandria, Virginia; for Washington Metropolitan Area Transit Authority - Rapid Rail System construction projects only Change: Asbestos Workers Carpenters & Soft Floor Layers Electricians Elevator Constructors Elevator Constructors Helpers Elevator Constructors Helpers (Prob.) Lathers Millwrights Piledrivermen Plumbers Sheet metal workers Steamfitters					
5.19 10.36 10.46 10.21 10.49 10.74 10.73	.50 .65 .65 .87 .84 .65	.50 .53 .53 .83 .96 .90		47+a+b 47+a+b	.025 .05 .05 .25 .12 .16

MODIFICATIONS P. 3

Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
	H & W	Pensions	Vacation		
\$5.00					
\$12.12	.40				.15
Decision #KY76-1080 - Mod. #1 (41 FR 30532 - July 23, 1976) Breckinridge, Bullitt, Hardin, Jefferson, Marion, Meade, Nelson, Oldham, Shelby, Spencer, and Washington Counties, Kentucky Add: Plasterers					
Decision #NV76-5074 - Mod. #4 (41 FR 33162 - August 8, 1976) Clark County (excluding the Ne- vada Test Site), Nevada Change: Soft Floor Layers					
Decision #NJ76-3127 - Mod. #4 (41 FR 8702 - February 27, 1976) Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Monmouth, Ocean and Salem Counties, New Jersey Change: Ironworkers Structural, Ornamental and Reinforcing: Atlantic and Cape May Counties					
\$11.60	.84	1.21			

MODIFICATIONS P. 5

	Basic Hourly Rates	Fringe Benefits Payments			
		H & W	Pensions	Vacation	Education and/or Appr. Tr.
Decision #DC76-3226 - Mod. # 2 (41 FR 32194 - July 30, 1976) Washington, D. C.					
Change: Building & Heavy Construction (Including WMATA)					
Asbestos Workers	\$10.77	.59	.89		.03
Carpenters & Soft Floor Layers	10.00	.65	.53		.05
Electricians	10.80	.65	17+.80		.13
Elevator Constructors	10.38	.495	.32	4%*a+b	.02
Elevator Constructors Helpers	7.27	.495	.32	4%*a+b	.02
Elevator Constructors Helpers (Prob.)	5.19				
Lathers	10.36	.50	.50		.025
Millwrights	10.46	.65	.53		.05
Piledrivermen	10.21	.65	.53		.05
Plumbers	10.49	.87	.83		.25
Sheet metal workers	10.74	.84	.96		.12
Steamfitters	10.73	.65	.90		.16
Paving & Incidental Grading plus Sewer & Water Lines (Excluding WMATA - Rapid Rail Transit System)					
Carpenters	10.00	.65	.53		.05

DECISION NO. IA76-4145

**BUILDING, WATER TREATMENT PLANTS & SWAGE DISPOSAL PLANTS CONSTRUCTION**

**POWER EQUIPMENT OPERATORS:**

	Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
		H & W	Pensions	Vacation	
GROUP 1	\$ 9.45	.40	.50		.08
GROUP 2	8.05	.40	.50		.08
GROUP 3	7.00	.40	.50		.08

**POWER EQUIPMENT OPERATORS CLASSIFICATION DEFINITIONS**

**GROUP 1** - All hoists or steel erecting equipment; Crane, Shovel, Clamshell, Drag-Line, Backhoe, Derricks, Tower Crane, Cable Way, Concrete Spreader (servicing 2 pavers), Asphalt Spreader, Asphalt Mixer Plant Engineer, Dipper Dredge Operator; Dipper Dredge Craneman, Dual Purpose Truck (boom or winch); Leverman or Engineman (hydraulic dredge), Mechanic, Paving, Mixer with tower attached (2 operators required); File Driver, Boom Tractor, Stationary, Portable or Floating Mixing Plant, Trenching Machine (over 40 HP), Building Hoist (2 drums), Hot Paint Wrapping Machine, Cleaning & Priming Machine, Backfiller (throw bucket), Locomotive Engineer, Qualified Welder, Tow or Push Boat, Concrete Paver, Seaman Trav-L-Plant or similar machines, CMI Autograder or similar machines, Slip Form Paver, Caisson Augering Machine, Muck-ing Machine, Asphalt Heater-Planer Unit, Hydraulic Cranes, Mine Hoists; Alley, Barber-Green, Euclid or Hais Loader, Asphalt Pug Mill, Fireman & Driver, Concrete Pump, Concrete Spreader (servicing 1 paver); Bulldozer, Endloader, Log Chippers or similar machines, Elevating Grader, Group Equipment Greaser, Leftturnsupull & similar machines, DM-10, Hyster Winch & similar machines, Motor Patrol, Power Blade, Push Cat, Tractor Pulling Elevating Grader or Power Blade, Tractor Operating Scoop or Scraper, Tractor with Power Attachments, Roller on Asphalt or Blacktop, Single Drum Hoist, Jaeger Mix & Place Machine, Pipe Bending Machine, Flexaplane or similar machines, Automatic Curbing Machines, Automatic Cement & Gravel Batch Plants (1 stop set-up), Seaman Pulvi-Mixer or similar machines, Blasthoist Self-Propelled Rotary Drill or similar machines, Work Boat, Combination Concrete Finishing Machine & Float, Self-Propelled Sheep Foot Roller or Compactor (used in conjunction with a Grading Spread), Asphalt Spreader Screed Operator, Apasco Spreader or similar machine, Slusher, Fork-lift (over 6000 lbs. cap. or working at heights above 28 ft.), Concrete Conveyors

**GROUP 2** - Asphalt Rooster, Fireman & Pump Operator at Asphalt Plant, Mud Jack, Under-ground Boring Machine, Concrete Finishing Machine, Form Grader with Roller on Earth, Mixers (3 bag to 16E), Power Operated Bull Float, Tractor without Power Attachments, Dope Pot (agitating motor), Dope Chop Machine, Distributor (back end), Straddle Carrier, Portable Machine Fireman, Hydro-Hammer, Power Winch on Paving Work; Self-Propelled Roller or Compactor (other than provided for above), Pump Operator (more than 1 well point pump), Portable Crusher Operator, Trench Machine (under 40 HP), Power Subgrader (on forms) or similar machines, Forklift (6000 lbs. or less capacity), Gypsum Pump, Conveyor over 20 HP, Fuller-Kenyon Cement Pump or similar machines; Air Compressor (275 CFM or over), Driver on Truck Crane or similar machine, Light Plant, Mixers (1 or 2 bag), Power Batching Machine (Cement Auger or Conveyor), Bofiler (Engineer or Fireman), Water Pumps, Mechanical Broom, Automatic Cement & Gravel Batch Plants (2 or 3 stop set-up), Small Rubber-tired Tractors (not including backhoes or endloaders), Self-Propelled Daring Machine

**GROUP 3** - Oiler, Mechanic's Helper, Mechanical Heater (other than steam boiler), Belt Machine, Small Outboard Motor Boat, Engine Driven Welding Machine

**SUPERSEDES DECISION**

COUNTY: Clinton (City of Clinton and abutting municipalities)

DATE: Date of Publication

DECISION NO.: IA76-4145  
 Supersedes Decision No. IA76-4056, dated February 27, 1976, in 41 FR 8674  
 DESCRIPTION OF WORK: Building Construction (excluding single family homes and garden type apartments up to and including 4 stories), Heavy and Highway Construction.

	Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
		H & W	Pensions	Vacation	
BUILDING, WATER TREATMENT PLANTS & SWAGE DISPOSAL PLANTS CONSTRUCTION	\$10.60 10.30 9.25	.35 .85	.60 1.00		.10 .02
ASBESTOS WORKERS	8.74	.45	.60		4%
BOILERMAKERS	9.14	.45	.60		
BRICKLAYERS & STONEMASONS	9.30	6%	7%		
CARPENTERS:	8.75		.45		
Carpenters			.60		
Piledrivermen			.45		
Millwrights			7%		
CEMENT MASONS	10.05	.45	5.5%		.03
ELECTRICIANS:	10.30	.45	5.5%		.03
Electricians	8.75	.55	1.00		
Cable splicers	11.22	.50	.375		.07
GLAZIERS	7.27	.30	.25		
IRONWORKERS					
LABORERS:					
GROUP 1 - Common laborers					
GROUP 2 - Operator on air or power tools; mortar mixer man; any work 35 ft. high or over; cement dumper, puddlers or vibrator man and men working with concrete pump hose; ditch work 8 ft. below ground level; any man working with creosote materials	7.52	.30	.25		
GROUP 3 - Cutting torch burner; caisson & cofferdam workers	7.57	.30	.25		
MARELE SETTERS	9.20	.50	.50		
PAINTERS:					
Brush	8.77	.45	.60		.12
Spray; Structural steel	9.02	.45	.60		.12
PLASTERERS	9.25		.45		
PLUMBERS & STEAMFITTERS	10.31	.60			.10
ROOFERS	11.20		.40		.10
SHEET METAL WORKERS	9.25	.45	.40		
SOFT FLOOR LAYERS	8.74	.45	.60		.08
SPRINKLER FITTERS	11.23	.60	.90		
TERAZZO WORKERS	9.20		.50		
TILE SETTERS	9.20		.50		
WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental					

DECISION NO. IA76-4145

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 6.60	.40	.40		.03
6.55	.40	.40		.03
6.20	.40	.40		.03
6.10	.40	.40		.03
5.80	.40	.40		.03
5.45	.40	.40		.03
6.34	.35			

HEAVY & HIGHWAY CONSTRUCTION

POWER EQUIPMENT OPERATORS:

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5
- Group 6

TRUCK DRIVERS

POWER EQUIPMENT OPERATORS (HEAVY & HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS

GROUP 1 - Power shovel, crane, backhoe and dragline; Central mix plant operator; Dredge engineer; Dredge leverman; Paver or spreader operator; Hoisting engineer (steel erection); Motor patrol; Piledriver machine operator; Concrete mixer; Tow or push boat operator; Master mechanic

GROUP 2 - C.M.I. paver; C.M.I. subgrader (or equivalent); Asphalt plant operator; Front end loader operator; Scraper operator; Bulldozer; Push Cat; Tractor pulling scraper; Sideboom tractor; Churn or rotary drill; Trenching Machine (Cleveland 80 or similar capacity); Asphalt laydown operator; Asphalt Screed Operator; Asphalt Heater-planer unit; Asphalt roller operator; Self-propelled elevating grader or similar machine; Spreader Operator (concrete); Horizontal boring machine operator; Mechanics-Welders; Group equipment greaser; Concrete pump

GROUP 3 - Concrete curb breaking machine; Concrete widening machine operator; Paving breaker operator; Barber-Green, Haiss Loader or similar machine; Tractor pulling ripper, disc, sheepfoot or flat roller; Self-propelled sheepfoot roller

GROUP 4 - Self-propelled roller operator (other than asphalt); Distributor operator; Screening and washing plant operator; Self-propelled vibrating compactor; Trenching machine operator (other than above); Steel placing machine operator; Conveyor Operator; Finishing Machine Operator (on concrete); Flexplane Operator; Bull Float Operator; Form Grader Operator

GROUP 5 - Boiler Operator; Mechanical broom operator; Oiler or mechanics' helper or group greaser helper; Farm-type tractor (pulling disc, harrow or roller); Welding machine operator; Pump Operator (other than dredge); Boom and winch truck operator; Compressor Operator; Tank car heater (combination boiler & booster); Pumps on well points & deep wells for dewatering; Truck crane combination driver-oiler; Concrete curing machine operator; Safety boat operator

GROUP 6 - Batch plant operator - dry

DECISION NO. IA76-4145

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 9.83	.35	.50		.02
7.30	.31			
6.86				
6.60	.30	.10		
6.35	.20	.10		
6.10	.30	.10		
5.95	.30	.10		
5.65	.30	.10		

HEAVY & HIGHWAY CONSTRUCTION

CARPENTERS:

Construction, alteration or repair of bridges, locks, dams, levees, docks & on drainage & soil conservation work there on, which relates to the Mississippi River

Other heavy & highway construction: Carpenters & piledrivermen

CEMENT MASONS

LABORERS:

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5

LABORERS (HEAVY & HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS

GROUP 1 - Sandblasters; Powderman and Blaster; Pipe Layer, sewer, water, telephone conduits, etc.; Sewer utility man; Gummite nozzle man; Diamond and core drills powered by air; All work performed by Laborers working from a bos'n chair, swinging stage, life belt, tag line, or block and tackle; Drill operators of air tracs, wagon drills and similar drills

GROUP 2 - Tree climber; Form setters; Rakers; Boxtenders; Asphalt Curb Machines; Potmen, not mechanical; Bull float, hand operated; Scalers; Timberman; Underpinning and shoring; Caissons over 12 ft.; Grade checker and cutting torches on demolition work

GROUP 3 - Power buggyman; Concrete and paving sawman; Form liner, expansion joint assembler; Bottom man; Caulker and joiner and painter; Timber and chain saw man; Mechanical grouters; Automatic concrete power cutting machines; Stresser or stretcherman on post-tension or pre-stressed concrete on or off the job; Powderman helpers

GROUP 4 - Form tamper; Air, gas and electric tool operators, vibrators, barco hammer, paving breakers, spaders, tampers, electric drills, hammers, and jack hammers; Tree groundmen; Chuck tenders; Drill helpers, tool room men and checkers; Sand blaster helper; Concrete processing material and monitors; Cement finishers' helpers; Stringman on paving work

GROUP 5 - Fence erectors; Handling and placing of metal mesh, dowel bars, reinforcement bars and chairs; Dumpren and spotters; Carrying reinforcing rods; Curved culvert pipe; Concrete drainage pipe; Stake chaser, seeding, cutting and planting of trees, shrubs and flowers; Water boy; Common laborer; Rodmen; Tending to carpenters; Hot asphalt labor

COUNTY: Des Moines (City of Burlington and abutting municipalities and Burlington Ordinance Plant)

STATE: Iowa  
 DECISION NO.: IA76-4146  
 Supersedes Decision No. IA76-4057, dated February 27, 1976, in 41 FR 8676  
 DESCRIPTION OF WORK: Building Construction (excluding single family homes and garden type apartments up to and including 4 stories), Heavy and Highway Construction.

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 7.00	.35	1%	a	1/2%
4.81	.35	1%	a	1/2%
8.05		.15		
8.15		.15		
8.55		.15		
8.75		.15		
9.05		.15		.05
9.88		.70		
10.25	.35		.25	
6.85				.10
9.00	.45			.04
9.25	.45			.08
11.23	.60			
8.02	13.50p/w			
8.23	13.50p/w			
8.33	13.50p/w			

**BUILDING, WATER TREATMENT PLANTS & SEWAGE DISPOSAL PLANTS CONSTRUCTION**

**LINE CONSTRUCTION (CONT'D):**  
 GROUP 4 - Blaster; Special equipment operations (hole digging machines, all tractors, transmission line pole hauling & setting equipment other than assembled "H" fixtures)  
 GROUP 5 - Groundman-1st 6 mos.

**PAINTERS:**  
 GROUP 1 - Brush  
 GROUP 2 - Rollers  
 GROUP 3 - Sign  
 GROUP 4 - Structural steel over 25 ft. from the ground or floor bridges, water towers & stage work  
 GROUP 5 - Spray gun & sandblasting

**PLASTERERS & STEANFITTERS**  
**ROOFERS**  
**SHEET METAL WORKERS**  
**SOFT FLOOR LAYERS**  
**SPRINKLER FITTERS**  
**TRUCK DRIVERS:**  
 GROUP 1 - Warehouseman; Helpers; Teamsters; Mechanic helpers; Greasers; Single axle flat beds & dump trucks; Pulling air compressors & welding machines; Batch trucks 2-34E batches or less; Chip spreader  
 GROUP 2 - Cheater axle; Tandems; 6 wheel trucks; Semi-trailers; Carryall; Winch; Mixers; Batch over 2-34E  
 GROUP 3 - Track trucks; Euclid type truck; Oil distributors; Front & rear; All types of dumpsters; Pavement breakers  
**WELDERS** - receive rate prescribed for craft performing operation to which welding is incidental.

**FOOTNOTE:**  
 a Seven paid holidays - A thru G  
 Paid Holidays  
 A-New Year's Day; B-Memorial Day;  
 C-Independence Day; D-Labor Day;  
 E-Thanksgiving; F-Christmas Day;  
 G-Friday after Thanksgiving

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 10.60	.35	.60		.10
10.30	.85	1.00		.02
10.52		.20		
9.25	.45	.60		.04
9.93	.45	.60		.04
10.25	.38	1%		1%
10.90	.55	1.00		
8.75	.50	.30		
10.25				
7.87	.30			
8.03	.30			
8.13	.30			
8.24	.30			
8.34	.30			
8.75	.35	1%	a	1/2%
5.69	.35	1%	a	1/2%
5.86	.35	1%	a	1/2%

**BUILDING, WATER TREATMENT PLANTS & SEWAGE DISPOSAL PLANTS CONSTRUCTION**

**ASBESTOS WORKERS**  
**BOILERMAKERS**  
**BRICKLAYERS & STONEMASONS**  
**CARPENTERS:**  
 Carpenters  
 Millwrights & piledrivermen  
**CEMENT MASONS**  
**ELECTRICIANS**  
**GLAZIERS**  
**IRONWORKERS:**  
 GROUP 1 - Common laborers; Signal man; Wrecking deck hand  
 GROUP 2 - Plaster tender; Mortar mixer; Mason tender; Stone & marble setter tender; Drill operator; Jackhammer man; Air tamper; Air spade (electric or pneumatic); Spraying equipment & all mechanically operated tools; Excavation work over 6 ft. deep below ground level or basement level  
 GROUP 3 - Tilt layers (sewers)  
 GROUP 4 - Gunniting & sandblasting  
 GROUP 5 - Tunnel & sewer mucker & miner over 6 ft. deep; Caisson worker & drill operator in tunnel & caisson; Powdermen

**LINE CONSTRUCTION:**  
 GROUP 1 - Cable splicers; Lineman; Welder; Technicians; All rigs setting assembled "H" fixtures and steel transmission structures  
 GROUP 2 - Groundman; Truck driver (without winch); Experienced (not less than 6 months)  
 GROUP 3 - Groundman; Truck driver (with winch)

DECISION NO. IA76-4146

HEAVY & HIGHWAY CONSTRUCTION

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 7.30	.31			
6.86				
6.60	.30	.10		
6.35	.30	.10		
6.10	.30	.10		
5.95	.30	.10		
5.85	.30	.10		

CARPENTERS & PILEDRIEVERMEN

CEMENT MASONS

LABORERS:

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5

LABORERS (HEAVY & HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS

- GROUP 1** - Sandblasters; Powderman and Blaster; Pipe layer, sewer, water, telephone conduits, etc.; Sewer utility man; Gunnite nozzleman; Diamond and core drills, powered by air; All work performed by laborers working from a bos'n chair, swinging stage, life belt, tag line or block and tackle; Drill operator of air traces, wagon drills and similar drills
- GROUP 2** - Tree climber; Form setters; Rakers; Boxtenders; Asphalt curb machines; Potmen, not mechanical; Bull float, hand operated; Scallers; Timbermen; Underpinning and shoring; Caissons over 12 ft.; Grade checker and cutting torches on demolition work
- GROUP 3** - Power buggyman; Concrete and paving sawman; Form liner, expansion joint assembler; Bottom man; Caulker and joiner and painter; Timber and chain saw man; Mechanical grouters; Automatic concrete power curbing machines; Stresser or stretcherman on post-tension or pre-stressed concrete on or off the job; Powderman helpers
- GROUP 4** - Form tapper; Air, gas and electric tool operators, vibrators, barco hammer, paving breakers, spaders, tampers; electric drills, hammers and jack hammers; Tree groundmen; Chuck tenders; Mill helpers, tool room men and checkers; Sand blaster helper; Concrete processing material and monitors; Cement finishers' helpers; Stringman on paving-work
- GROUP 5** - Fence erectors; Handling and placing of metal mesh, dowel bars, reinforcing bars and chairs; Dumpmen and spotters; Carrying reinforcing rods; Corrugated culvert pipe; Concrete drainage pipe; Stake chaser, seeding, mulching and planting of trees, shrubs and flowers; Water boy; Common labor; Rodmen; Tending to carpenters; Hot asphalt labor

DECISION NO. IA76-4146

BUILDING, WATER TREATMENT PLANTS & SEWAGE DISPOSAL PLANTS CONSTRUCTION

POWER EQUIPMENT OPERATORS

- GROUP 1
- GROUP 2
- GROUP 3

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 9.45	.40	.50		.08
8.05	.40	.50		.08
7.00	.40	.50		.08

POWER EQUIPMENT OPERATORS CLASSIFICATION DEFINITIONS

- GROUP 1** - All hoists or steel erecting equipment; Crane, Shovel, Cramshell, Dragline, Backhoe, Derrick, Tower Crane, Cable Way, Concrete Spreader (servicing 2 pavers), Asphalt Spreader, Asphalt Mixer Plant Engineer, Dipper Dredge Operator, Upper Dredge Craneman, Dual Purpose Truck (boom or winch), Locomotive or Engineman (hydraulic dredge), Mechanic, Paving Mixer with tower attached (2 operators required), Pile Driver, Boom Tractor, Stationary, Portable or Floating Mixing Plant, Trenching Machine (over 40 HP), Building Hoist (2 drums), Hot Paint Wrapping Machine, Cleaning & Priming Machine, Backfiller (throw bucket), Locomotive Engineer, Qualified Welder, Tow or Push Boat, Concrete Paver, Seaman Trav-L-Plant or similar machines, CNI Autograder or similar machines, Slip Form Paver, Caisson Augering Machine, Mucking Machine, Asphalt Heater-Planer Unit, Hydraulic Cranes, Mine Hoists; Athey, Barber-Green, Euclid or Hais Loader, Asphalt Pug Mill, Fireman and Drier, Concrete Pump, Concrete Spreader (servicing 1 paver), Bulldozer, Endloader, Log Chippers or similar machines, Elevating Grader, Group Equipment Greaser, Letourneauull and similar machines, DM-10, Hyster Winch & similar machines, Motor patrol, Power Blade, Push Cat, Tractor Pulling Elevating Grader or Power Blade, Tractor Operating Scoop or Scraper, Tractor with Power Attachments, Roller on Asphalt or Blacktop, Single Drum Hoist, Jaeger Mix & Place Machine, Pipe Bending Machine, Flexaplane or similar machines, Automatic Curbing Machines, Automatic Cement and Gravel Batch Plants (1 stop set-up), Seaman Pulvi-Mixer or similar machines, Blastholer Self-propelled Rotary Drill or similar machines, Work Boat, Combination Concrete Finishing Machine & Float, Self-propelled Sheepsfoot Roller or Compactor (used in conjunction with a Grading Spread), Asphalt Spreader Screen Operator, Apaco Spreader or similar machine, Slusher, Forklift (over 6000 lbs. capacity or working at heights above 28 ft.), Concrete Conveyors
- GROUP 2** - Asphalt Booster, Fireman and Pump Operator at Asphalt Plant, Mud Jack, Underground Roring Machine, Concrete Finishing Machine, Form Grader with Roller on Earth, Mixers (3 bag to 16E), Power Operated Bull Float, Tractor without Power attachment, Dope Pot (spitting motor), Dope Chop Machine, Distributor (back end), Straddle Carrier, Portable Machine Fireman, Hydro-Hammer, Power Winch on Paving Work, Self-propelled Roller or Compactor (other than provided for above), Pump Operator (more than 1 well point pump), Portable Crusher Operator, Trench Machine (under 40 HP), Power Subgrader (on forms) or similar machines, Forklift (6000 lbs. or less capacity), Gypsum Pump, Conveyor over 20 HP, Fuller Kenyon Cement Pump or similar machines; Air Compressor (275 CFM or over), Driver on Truck Crane or similar machines, Light Plant, Mixers (1 or 2 bag), Power Batching Machine (Cement Auger or Conveyor), Boiler (Engineer or Fireman), Water Pumps, Mechanical Broom, Automatic Cement & Gravel Batch Plants (2 or 3 stop set-up), Small Rubber-tired Tractors (not including backhoes or endloaders), Self-propelled curing machine
- GROUP 3** - Oiler, Mechanic's Helper, Mechanical Heater (other than steam boiler), Belt Machine, Small Outboard Motor Boat, Engine Driven Welding Machine

DECISION NO. LA76-4145

HEAVY & HIGHWAY CONSTRUCTION

POWER EQUIPMENT OPERATORS:

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5
- Group 6

TRUCK DRIVERS

Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
	H & W	Pensions	Vacation		
\$ 6.60	.40	.40		.03	
6.55	.40	.40		.03	
6.20	.40	.40		.03	
6.10	.40	.40		.03	
5.80	.40	.40		.03	
5.45	.40	.40		.03	
6.34	.35				

POWER EQUIPMENT OPERATORS (HEAVY & HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS

GROUP 1 - Power shovel, crane, backhoe and dragline; Central mix plant operator; Dredge engineer; Dredge leverman; Paver or spreader operator; Hoisting engineer (steel erection); Motot patrol; Piledriver machine operator; Concrete mixer; Tow or push boat operator; Master mechanic

GROUP 2 - C.M.I. Paver; C.M.I. Subgrader (or equivalent); Asphalt plant operator; Front end loader operator; Scraper operator; Bulldozer; Push Cat; Tractor pulling scraper; Sideboom tractor; Churn or rotary drill; Trenching machine (Cleveland 80 or similar capacity); Asphalt laydown operator; Asphalt screed operator; Asphalt heater-planer unit; Asphalt roller operator; Self-propelled elevating grader or similar machines; Spreader operator (concrete); Horizontal boring machine operator; Mechanics-Welders; Group equipment fitter; Concrete pump

GROUP 3 - Concrete curb breaking machine; Concrete widening machine operator; Paving breaker operator; Barber-Greene, Haiss loader or similar machine; Tractor pulling ripper, disc, sheepsfoot or flat roller; Self-propelled sheepsfoot roller

GROUP 4 - Self-propelled roller operator (other than asphalt); Distributor operator; Screening and washing plant operator; Self-propelled vibrating compactor; Trenching machine operator (other than above); Steel placing machine operator; Finishing machine operator (on concrete); Flexplane operator; Pull float operator; Form Grader operator; Conveyor

GROUP 5 - Boiler operator; Mechanical broom operator; Oiler or mechanics' helper or group greaser helper; Farm-type tractor (pulling disc, harrow or roller); Welding machine operator; Pump operator (other than dredge); Boom and winch truck operator; Compressor operator; Tank car heater (combination boiler & booster); Pumps on wellpoints & deep wells for dewatering; Truck crane combination driver-oiler; Concrete curing machine operator; Safety boat operator

GROUP 6 - Batch plant operator - dry

SUPERSEDES DECISION

STATE: Iowa

COUNTY: Dubuque (City of Dubuque and abutting municipalities)  
 DATE: Date of Publication  
 Supersedes Decision No. IA76-4058, dated February 27, 1976, in 41 FR 8679  
 DESCRIPTION OF WORK: Building construction (excluding single family homes and garden type apartments up to and including 4 stories), Heavy and Highway Construction.

DECISION NO. IA76-4147

	Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
		H & W	Pensions	Vacation		
BUILDING, WATER TREATMENT PLANTS & SPACE DISPOSAL PLANTS CONSTRUCTION	\$10.60	.35	.60		.10	
ASBESTOS WORKERS	10.30	.85	1.00		.02	
BOILERMAKERS	9.14	.38				
BRICKLAYERS & STONEMASONS	8.90		.37			
CARPENTERS:	9.30		.37			
Carpenters	9.40		.37			
Piledrivers	9.28					
Millwrights	9.27					
CEMENT MASONS	9.27					
ELECTRICIANS	9.97		1%+.25		1%	
ELEVATOR CONSTRUCTORS	9.535	.30	.32	4**a	.02	
ELEVATOR CONSTRUCTORS' HELPERS	70%JR	.495	.32	4**a	.02	
ELEVATOR CONSTRUCTORS' HELPERS (PROB.)	50%JR					
GLAZIERS	8.75	.55	1.00			
IRONWORKERS	11.22	.50	.375		.07	
SE Portion	10.565				.02	
Remainder of County						
LABORERS:						
GROUP 1 - Common laborers; Gas distributors	5.97	.30	.10			
GROUP 2 - All air operated tools; Bricklayers; helpers & tenders; Gaiisson workers; Carpenters; helpers; Handling & cleaning of all steel floor pans & wall forms; Mortar mixers; Plasterers; helpers & tenders; Tile setters (4"-6"-8")						
GROUP 3 - Tile setters (10" and up)	6.07	.30	.10			
LATHERS	6.22	.30	.10			
MARBLE SETTERS	9.25					
PAINTERS:	9.14	.38				
Brush or roller epoxy; Paper-hanging; Tapers	7.90		.30			
High work and steel; spraying	8.35		.30			
PLASTERERS						
PLUMBERS & STEAMFITTERS	10.81	.36	.30		.08	

	Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
		H & W	Pensions	Vacation		
BUILDING, WATER TREATMENT PLANTS & SPACE DISPOSAL PLANTS CONSTRUCTION	\$ 8.39		.20			
ROOFERS	9.10	.45	.40		.10	
SHEET METAL WORKERS	11.23	.60	.90		.08	
SPRINKLER FITTERS	9.14	.38				
TERRAZZO WORKERS	9.14	.38				
TILE SETTERS						
TRUCK DRIVERS:						
Single axle	5.24	9.50p/w				
Tandem axle; Tractor trailers; winches	5.39	9.50p/w				
WELDERS - receive rate prescribed for craft performing operation to which welding is incidental						
FOOTNOTE:						
a - Employer contributes 4% of basic hourly rate for over 5 years' service and 2% of basic hourly rate for 6 months to 5 years' service as Vacation Pay Credit. Six Paid Holidays A thru F						
PAID HOLIDAYS						
A-New Years' Day; B-Memorial Day						
C-Independence Day; D-Labor Day;						
E-Thanksgiving Day; F-Christmas Day						

DECISION NO. IA76-4147

	Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
		H & W	Pensions	Vacation	
<b>HEAVY &amp; HIGHWAY CONSTRUCTION</b>					
<b>CARPENTERS &amp; PILEDRIVERMEN</b>					
<b>CEMENT MASONS</b>					
<b>LABORERS:</b>					
Group 1	6.60	.30	.10		
Group 2	6.35	.30	.10		
Group 3	6.10	.30	.10		
Group 4	5.95	.30	.10		
Group 5	5.85	.30	.10		

**LABORERS (HEAVY & HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS**

**GROUP 1** - Sandblasters; Powderman and Plaster; Pipelayer, sewer, water, telephone conduits, etc.; Sewer utility man; Gummite nozzleman; Diamond and core drills, powered by air; All work performed by laborers working from a bos'n chair, swing-stage, life belt, tag line, or block and tackle; Drill operators of air tracs, wagon drills and similar drills

**GROUP 2** - Tree climber; Form setters; Rakers; Boxtenders; Asphalt curb machines; Potmen, not mechanical; Bull float, hand operated; Scalers; Timbermen; Underpinning and shoring; Caissons over 12 ft.; Grade checker and cutting torches on demolition work

**GROUP 3** - Power boggyman; Concrete and paving sawman; Form liner, expansion joint assembler; Bottom man; Caulker and jointer and painter; Timber and chain saw man; Mechanical grouters; Automatic concrete power curbing machines; Stresser of stretcherman on post-tension or pre-stressed concrete on or off the job; Powderman helpers

**GROUP 4** - Form tamper; Air, gas and electric tool operators, vibrators, barco hammers, paving breakers, spaders, tamers, electric drills, hammers and jack hammers; Tree groundman; Chuck tenders; Drill helpers, tool room men and checkers; Sand blaster helper; Concrete processing material and monitors; Cement finishers' helpers; Stringman on paving work

**GROUP 5** - Fence erectors; Handling and placing of metal mesh, dowel bars, reinforcing bars and chairs; Dumpmen and spotters; Carrying reinforcing rods; Corrugated culvert pipe; Concrete drainage pipe; Stake chaser, seeding, mulching and planting of trees, shrubs and flowers; Water boy; Common laborers; Rodmen; Tending to carpenters; Hot asphalt labor

DECISION NO. IA76-4147

	Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
		H & W	Pensions	Vacation	
<b>BUILDING, WATER TREATMENT PLANTS &amp; WASTE DISPOSAL PLANTS CONSTRUCTION</b>					
<b>POWER EQUIPMENT OPERATORS</b>					
GROUP 1	9.56	.50	.50		.05
GROUP 2	9.435	.50	.50		.05
GROUP 3	8.59	.50	.50		.05
GROUP 4	8.265	.50	.50		.05

**POWER EQUIPMENT OPERATORS CLASSIFICATION DEFINITIONS**

**GROUP 1** - Cranes, including those being used as backhoe, dragline, clamshell, etc.; Tower cranes; Truck cranes and cherry pickers 12½ ton & over rated capacity; Derricks; Piledrivers and extractors; Caisson rigs; Side boom and winch truck used for erection of structural steel and moving and setting of heavy machinery; 3 drum hoist; Welders; Mechanics; Locomotive; Dredge (levermen)

**GROUP 2** - 1 and 2 drum hoist; Air and electric tuggers (on power plants or setting steel or gratings); Economobiles; Plant mixers; Farm type tractors (with loaders, backhoes, attachments, etc.); Scrapers (tounapull, etc.); Endloaders; Dredge (engineer); Side boom and winch truck other than Group No. 1; Motor patrol; Bulldozers; Push Cat; Truck Cranes and cherry pickers (under 12½ ton); Concrete Mixers (1 yard and over); Ditching machines (8" and over); Fork lifts (on steel erection and machinery moving or hoisting above one complete story); Concrete pump; Dewatering pump; Temporary hoist cage operated; Second man on locomotive; Vibrating concrete spreader (Gomaco, C-450 or equal)

**GROUP 3** - Tractor (under 35 HP) with or without attachments; Endloaders (under 35 HP) with or without attachments; Air compressors (one or a combination of 250 cfm or more); Pumps 3" or over; Welding machines 600 amps or combination thereof; Conveyors; Firemen (Boiler); Generator (75 KW & over); Fork lifts (other than above Group No. 2); Gummite machine; Self-propelled rollers; Stump chippers; Self-propelled tampers; Air and electric tuggers (other than above); Ditching machine under 8"

**GROUP 4** - Oilers; Mechanical heaters; Truck crane drivers; Permanent elevators

DECISION NO. IA76-4147

HEAVY & HIGHWAY CONSTRUCTION

POWER EQUIPMENT OPERATORS:

- Group 1
- Group 2
- Group 3

TRUCK DRIVERS

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 7.30	.40	.40		.03
6.90	.40	.40		.03
6.50	.40	.40		.03
6.34	.35			

POWER EQUIPMENT OPERATORS (HEAVY & HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS

GROUP 1 - Power Shovel, Crane, Backhoe and Dragline; Central Mix Plant Operator; Dredge Engineer; Dredge Leverman; Paver or Spreader Operator; Hoisting Engineer (Steel Erection); Motor Patrol; Piledriver Machine; Concrete Mixer; Tow or Push Boat Operator; Master Mechanic; C.M.I. Paver; C.M.I. Subgrader (or equivalent); Asphalt Plant; Front Endloader; Scraper; Bulldozer; Push Cat; Tractor Pulling Scraper; Sideboom Tractor; Churn or Rotary Drill; Trenching Machine (Cleveland 80 or similar capacity); Asphalt Laydown; Asphalt Screed; Asphalt Heater-Planer Unit; Asphalt Roller; Self-Propelled Elevating Grader or similar machine; Spreader (Concrete); Horizontal Boring Machine; Mechanics-Welders; Group Equipment Greaser; Concrete Pump; Self-Propelled Curb Machine

GROUP 2 - Concrete Curb Breaker; Concrete Widening Machine; Paving Breaker; Barber-Greene, Haiss Loader or similar machine; Tractor Pulling Ripper, Disc, Sheepfoot or Flat Roller; Self-Propelled Sheepfoot Roller; Self-Propelled Roller (other than asphalt); Distributor; Screening and Washing Plant; Self-Propelled Vibrating Compactor; Trenching Machine (other than above); Steel Placing Machine; Conveyor; Finishing Machine (on concrete); Flexplane; Bull Float; Form Grader

GROUP 3 - Boiler, Mechanical Broom; Oiler or Mechanics' Helper or Group Greaser Helper; Farm-type Tractor (pulling discs, harrow or roller); Welding Machine; Pump Operator (other than dredge); Boom and Winch Truck; Compressor; Tank Car Heater (combination boiler and booster); Pumps on Well Points and Deep Wells for Dewatering; Truck Crane Combination Driver-Oiler; Concrete Curbing Machine; Safety Boat Operator; Batch Plant (Dry)

DECISION NO. IA76-4148

SUPERSEDES DECISION

STATE: Iowa  
 COUNTY: Johnson (City of Iowa City and abutting municipalities)  
 DATE: Date of Publication  
 SUPERSEDES Decision No. IA76-4059, dated February 27, 1976, in 41 FR 8682  
 DESCRIPTION OF WORK: Building Construction (excluding single family homes and garden type apartments up to and including 4 stories), Heavy and Highway Construction

Basic Hourly Rates	Fringe Benefits, Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 9.18				
9.43				
9.83				
10.31		.55		.10
10.50	.45			
7.70				.01
10.64	.60	.90		.08
11.23				
4.63				

BUILDING, WATER TREATMENT PLANTS & SEWAGE DISPOSAL PLANTS CONSTRUCTION  
 PAINTERS:  
 Brush & rollers  
 Paperhangers  
 Sandblasting; Spray painting  
 PLASTERERS  
 PLUMBERS & STEAMFITTERS  
 ROOFERS  
 SHEET METAL WORKERS  
 SPRINKLER FITTERS  
 TRUCK DRIVERS  
 WELDERS - receive rate prescribed for craft performing operation to which welding is incidental.

FOOTNOTE:

a - Employer contributes 4% of the basic hourly rate for over 5 years' service and 2% of the basic hourly rate for 6 months to 5 years' of service as Vacation Pay Credit.  
 Six paid holidays - A thru F thru G  
 b - Seven paid holidays - A thru G

PAID HOLIDAYS

A-New Year's Day; B-Memorial Day; C-Independence Day; D-Labor Day; E-Thanksgiving Day; F-Christmas Day; G-Friday after Thanksgiving

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 10.60	.35	.60		.10
10.30	.85	1.00		.02
10.25		.55		
8.39	.45	.45		.08
8.89	.45	.45		.08
9.30	.64	.74		.04
8.80	.38			
10.70	.65	1%		.02
9.535	.495	.32	4%+a	.02
70%JR	.495	.32	4%+a	
50%JR				
8.75	.55	1.00		.02
10.565				
5.72	.30	.25		
5.92	.30	.25		
6.02	.30	.25		
10.06				
8.75	.35	1%	b	1/2%
5.69	.35	1%	b	1/2%
5.86	.35	1%	b	1/2%
7.00	.35	1%	b	1/2%
4.81	.35	1%	b	1/2%

BUILDING, WATER TREATMENT PLANTS & SEWAGE DISPOSAL PLANTS CONSTRUCTION

ASBESTOS WORKERS  
 BOILERMAKERS  
 BRICKLAYERS & STONEMASONS  
 CARPENTERS:  
 Carpenters; Soft floor layers  
 Piledriversmen  
 Millwrights  
 CEMENT MASONS  
 ELECTRICIANS  
 ELEVATOR CONSTRUCTORS  
 ELEVATOR CONSTRUCTORS' HELPERS  
 ELEVATOR CONSTRUCTORS' HELPERS (PROP.)  
 GLAZIERS  
 IRONWORKERS  
 LABORERS:  
 GROUP 1 - Common laborers  
 GROUP 2 - Mason mortar mixers  
 GROUP 3 - All jack & chipping hammers; All water & sewer tile layers; Chain saw; Cutting torches; Power buggies; Rock drills; Tampers; Vibrators; Well point work  
 LATHERS  
 LINE CONSTRUCTION:  
 GROUP 1 - Cable splicers; Lineman; Welder; Technicians; All rigs setting assembled "H" fixtures and steel transmission structures  
 GROUP 2 - Groundman; Truck driver (without winch); Experienced (not less than 6 months)  
 GROUP 3 - Groundman; Truck driver (with winch)  
 GROUP 4 - Plasterer; Special equipment operations (hole digging machines, all tractors, transmission line pole handling & setting equipment other than assembled "H" fixtures)  
 GROUP 5 - Groundman-1st 6 mos.

DECISION NO. IA76-4148

HEAVY & HIGHWAY CONSTRUCTION	Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
		H & W	Pensions	Vacation	
CARPENTERS & PILEDRIVERS	\$ 5.91	.25			
CEMENT MASONS	5.65				
LABORERS:					
Group 1	5.50	.30	.10		
Group 2	5.25	.30	.10		
Group 3	5.00	.30	.10		
Group 4	4.85	.30	.10		
Group 5	4.75	.30	.10		

LABORERS (HEAVY & HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS

GROUP 1 - Sandblasters; Powderman and Elaster; Pipe layer, sewer, water, telephone conduits, etc.; Sewer utility man; Gunnite nozzleman; Diamond and core drills, powered by air; All work performed by Laborers working from a bos'n chair, swinging stage, life belt, tag line, or block and tackle; Drill operator of air tracs, wagon drills and similar drills

GROUP 2 - Tree climber; Form setters; Rakers; Boxtenders; Asphalt curb machines; Potmen, not mechanical; Bull float, hand operated; Scalers; Timbermen; Underpinning and shoring; Caissons over 12 ft.; Grade checker and cutting torches on demolition work

GROUP 3 - Power buggyman; Concrete and paving sawman; Form liner, expansion joint assembler; Bottom man; Caulker and jointer and painter; Timber and chain saw man; Mechanical grouters; Foring machines; Automatic concrete power curbing machines; Stresser or stretcherman on post-tension or pre-stressed concrete on or off the job; Powderman helpers

GROUP 4 - Form tamper; Air, gas and electric tool operator, vibrators, barco hammer, paving breakers, spaders, tampers; electric drills, hammers and jack hammers; Tree groundmen; Chuck tenders; Drill helpers, tool room men and checkers; Sandblaster helper; Concrete processing material and monitors; Cement finisher' helpers

GROUP 5 - Fence erectors; Handling and placing of metal mesh; dowel bars, reinforcing bars and chairs; Pumpmen and spotters; Carrying reinforcing rods; Corrugated culvert pipe; Concrete drainage pipe; Stake chaser, seeding, mulching and planting of trees, shrubs and flowers; Water boy; Common laborers; Rodmen; Tending to carpenters; Hot asphalt labor; Stringman on paving work

DECISION NO. IA76-4148

BUILDING, WATER TREATMENT PLANTS & SEWAGE DISPOSAL PLANTS CONSTRUCTION	Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
		H & W	Pensions	Vacation	
POWER EQUIPMENT OPERATORS	\$ 9.56	.50	.50		.05
GROUP 1	9.435	.50	.50		.05
GROUP 2	8.59	.50	.50		.05
GROUP 3	8.265	.50	.50		.05
GROUP 4					

POWER EQUIPMENT OPERATORS CLASSIFICATION DEFINITIONS

GROUP 1 - Cranes, including those being used as backhoe, dragline, clamshell, etc.; Tower cranes; Truck cranes and cherry pickers 12 1/2 ton & over rated capacity; Derricks; Piledrivers and extractors, caisson rigs; Side boom and winch truck used for erection of structural steel and moving and setting of heavy machinery; 3 drum hoists; Welders; Mechanics; Locomotive; Dredge (Levermen)

GROUP 2 - 1 and 2 drum hoists; Air and electric tuggers (on power plants or setting steel or grating); Economobiles; Plant mixers; Farm type tractors (with loaders, backhoes, attachments, etc.); Scrapers (tounapull, etc.); Endloaders; Dredge (engineer); Side boom and winch truck other than Group No. 1; Motor patrol; Bulldozers; Push Cat; Truck cranes and cherry pickers (under 12 1/2 ton); Concrete mixers (1 yard and over); Ditching machine (8" and over); Fork lifts (on steel erection and machinery moving or hoisting above one complete story); Concrete pump; Dewatering pump; Temporary hoist cage operated; Second man on locomotive; Vibrating concrete spreader (Comaco, C-450 or equal)

GROUP 3 - Tractors (under 35 HP) with or without attachments; Endloaders (under 35 HP) with or without attachments; Air compressors (one or a combination of 250 CFM or more); Pumps 3" or over; Welding machines 600 amps or combination thereof; Conveyors; Fireman (Boiler); Generator (75 KW and over); Fork lifts (other than above Group No. 2); Gunnite machine; Self-propelled rollers; Stump chippers; Self-propelled tampers; Air and electric tuggers (other than above); Ditching machine under 8"

GROUP 4 - Oilers; Mechanical heaters; Truck crane drivers; Permanent elevators

DECISION NO. JA76-4148

HEAVY & HIGHWAY CONSTRUCTION

TRUCK DRIVERS

- GROUP 1
- GROUP 2

Basic Hourly Rates	Fringe Benefits Payments			
	H & W	Pensions	Vacation	Education and/or Appr. Tr.
\$ 4.65	.25			
4.75	.25			

TRUCK DRIVERS (HEAVY & HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS

GROUP 1 - Truck drivers, not otherwise specified; Warehousemen; Drivers on: four-wheel service trucks, bus hauling men, carry-all and winch trucks, dump crates and scoopmobiles

GROUP 2 - Truck drivers for semi and tandem; Dumpster operator; Drivers on: tandem service trucks, Korking and similar dumpsters, track trucks, euclids, hug bottom drums, tournapulls or similar equipment used for transportation, pavement breakers, pole trailers, air compressors and welding machines, including those pulled by separate units

DECISION NO. JA76-4148

HEAVY & HIGHWAY CONSTRUCTION

POWER EQUIPMENT OPERATORS

- GROUP 1
- GROUP 2
- GROUP 3
- GROUP 4
- GROUP 5
- GROUP 6

Basic Hourly Rates	Fringe Benefits Payments			
	H & W	Pensions	Vacation	Education and/or Appr. Tr.
\$ 6.40	.30	.30		.01
6.25	.30	.30		.01
6.00	.30	.30		.01
5.80	.30	.30		.01
5.60	.30	.30		.01
5.30	.30	.30		.01

POWER EQUIPMENT OPERATORS (HEAVY & HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS

GROUP 1 - Power shovel and crane type equipment (1/2 cu. yd. and over); Central mix plant operator, concrete 5 cu. yd. and over; Dredge engineer; Dredge lever-man; Concrete mixer, paver operator; Hoisting engineer, steel erection; Tractor operating scrapers in tandem; Motor patrol operator on finishing work; Master mechanic, when four or more mechanics are employed; Tow or push boat operator; Piledriver machine operator

GROUP 2 - Asphalt plant operator; Asphalt pugmill; Power shovel, crane type equipment (under 1/2 cu. yd.); Front end loader operator, all types 40 HP or over; Mechanics and welders; Tournapull operators, DM 10 and all similar equipment, over 10 cu. yds. truck capacity; All self-loading scrapers; Tractor operator, bulldozer, push cat or puller, scraper or roofer; Sideboom tractor; Churn or rotary drill operators; Trenching machine operator, Cleveland 80 or similar capacity; Self-propelled sheepsfoot roller, 100,000 lbs. and over; Central mix plant operator, concrete, under 5 cu. yds.; Asphalt spreader operator; Group equipment greaser; Automatic subgrade machines, slip form paving operator

GROUP 3 - Motor patrol operator, other than finish; Asphalt roller operator, high type surfacing; Concrete curb breaking machine operator; Concrete widening machine operator; Elevating grader and Athey loader operator; Tournapull operator, DW 10 and all similar equipment, under 10 cu. yds. struck capacity; Paving breaker operator, drop or pneumatic; Spreader box operator, self-propelled or tractor-pushed; Subgrade stab. (PKH and similar sizes); Boiler operator, two or one boiler and dryer; Subgrading machine operator; Asphalt paver, back hoe under 3/8 cu. yd.

GROUP 4 - Self-propelled roller operator, other than high type asphalt; Distributor operator; Screening and washing plant operator; Spreader operator, concrete; Tank car heater, combination boiler and booster; Self-propelled vibrating compactor; Trenching machine operator; (Other) pumps on well points and deep wells for dewatering; Mechanical broom operator; Steel placing machine operator; Boat operator; Compressor operator; Concrete mixer operator, side loader; Conveyor operator; Crusher feeder operator; Finishing machine operator on concrete; Flexplane operator; Bull float operator; Form grade operator; Motor crane combination driver and oiler; Concrete curing machine operator

GROUP 5 - Boiler Operator, single; Apprentice engineer or oil or mechanics' helper or group greaser helper; Self-propelled tractor (pulling disc, harrow or sheepsfoot roller); Welding machine operator; Pump operator, other than dredge; Boat and winch truck

GROUP 6 - Batching plant operator, dry; Front end loader operator, rubber tired, with backhoe attachment, under 3/8 cu. yd.; Farm tractor pulling pneumatic roller

DECISION NO. IA76-4149

SUPERSEDES DECISION

STATE: Iowa COUNTY: Linn  
 DATE: Date of Publication  
 Supersedes Decision No. IA76-4060, dated February 27, 1976, in 41 FR 8685  
 DESCRIPTION OF WORK: Building Construction (excluding single family homes and garden type apartments up to and including 4 stories), Heavy and Highway Construction

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 9.18				
9.43				
9.83				
10.31				
10.50	.45	.55		.10
7.70				
10.64		.50		.01
8.39	.45	.45		.08
11.23	.60	.90		.08
5.64				

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 10.60	.35	.60		.10
10.30	.85	1.00		.02
10.25		.55		
8.39	.45	.45		.08
8.89	.45	.45		.08
8.80	.38			
10.70	.65	1%		1%
9.535	.495	.32	4%+a	.02
70%JR	.495	.32	4%+a	.02
50%JR				
8.75	.55	1.00		.02
10.565				
7.605	.30	.50		
7.73	.30	.50		
7.805	.30	.50		
10.06				
8.75	.35	1%	b	1/2%
5.69	.35	1%	b	1/2%
5.86	.35	1%	b	1/2%
7.00	.35	1%	b	1/2%
4.81	.35	1%	b	1/2%

BUILDING, WATER TREATMENT PLANTS & SEWAGE DISPOSAL PLANTS CONSTRUCTION

PAINTERS:  
 Brush & rollers  
 Paperhangers  
 Sandblasting; Spraying  
 PLASTERERS  
 PLUMBERS & STEAMFITTERS  
 ROOFERS  
 SHEET METAL WORKERS  
 SOFT FLOOR LAYERS  
 SPRINKLER FITTERS  
 TRUCK DRIVERS  
 WELDERS - receive rate prescribed for craft performing operation to which welding is incidental

FOOTNOTE  
 a - Employer contributes 4% of basic hourly rate for over 5 years' service; 2% of basic hourly rate for 6 months to 5 years' service as Vacation Pay Credit. Six Paid Holidays A thru F  
 b - Paid Holidays A thru G

PAID HOLIDAYS  
 A-New Year's Day; B-Memorial Day; C-Independence Day; D-Labor Day; E-Thanksgiving Day; F-Christmas Day; G-Friday after Thanksgiving

DECISION NO. IA76-4149

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 9.56	.50	.50		.05
9.435	.50	.50		.05
8.59	.50	.50		.05
8.265	.50	.50		.05

BUILDING, WATER TREATMENT PLANTS & SPACE DISPOSAL PLANTS CONSTRUCTION

POWER EQUIPMENT OPERATORS

- GROUP 1
- GROUP 2
- GROUP 3
- GROUP 4

POWER EQUIPMENT OPERATORS CLASSIFICATION DEFINITIONS

GROUP 1 - Cranes, including those being used as backhoe, dragline, clamshell, etc.; Tower cranes and cherry pickers 12½ ton & over rated capacity; Derricks; Piledrivers and extractors; Caisson rigs; Side boom and winch truck used for erection of structural steel and moving and setting of heavy machinery; 3 drum hoist; Welders; Mechanics; Locomotive; Dredge (Levermen)

GROUP 2 - 1 and 2 drum hoists; Air and electric tuggers (on power plants or setting steel or grating); Economobiles; Plant mixers; Farm type tractors (with loaders, backhoes, attachments, etc.); Scrapers (fourapull, etc.); Endloaders; Dredge (engineer); Side boom and winch truck other than Group No. 1; Motor patrol; Bulldozers; Push Cat; Truck cranes and cherry pickers (under 12½ ton); Concrete Mixers (1 yard & over); Ditching machine (8" and over); Fork lifts (on steel erection and machinery moving or hoisting above one complete story); Concrete pump; Dewatering pump; Temporary hoist cage operated; Second man on locomotive; Vibrating concrete spreader (Gomaco, G-450 or equal)

GROUP 3 - Tractors (under 35 HP) with or without attachments; Endloaders (under 35 HP) with or without attachments; Air compressors (one or a combination of 250 CFM or more); Pumps 3" or over; Welding machines 600 AMP or combination thereof; Conveyors; Firemen (Hoiler); Generator (75 KW & over); Fork lifts (other than above Group No. 2); Gunnite machine; Self-propelled rollers; Stump chippers; Self-propelled tampers; Air and electric tuggers (other than above); Ditching machine under 8"

GROUP 4 - Oilers; Mechanical heaters; Truck crane drivers; Permanent elevators

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 7.30	.31			
6.86				
6.60	.30	.10		
6.35	.30	.10		
6.10	.30	.10		
5.95	.30	.10		
5.85	.30	.10		

HEAVY & HIGHWAY CONSTRUCTION

CARPENTERS & PILEDRIVER M

CEMENT MASONS

LABORERS:

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5

LABORERS (HEAVY & HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS

GROUP 1 - Sandblasters; Powderman and Blaster; Pipe layer, sewer, water, telephone conduits, etc.; Sewer utility man; Gunnite nozzleman; Diamond and core drills, powered by air; All work performed by Laborers working from a bos'n chair, swinging stage, life belt, tag line, or block and tackle; Drill operator of air tracs, wagon drills and similar drills

GROUP 2 - Tree climber; Form setters; Rakers; Boxtenders; Asphalt curb machines; Potmen, not mechanical; Bull float, hand operated; Scalers; Timbermen; Underpinning and shoring; Caissons over 12 ft.; Grade Checker and cutting torches on demolition work

GROUP 3 - Power buggyman; Concrete and paving sawman; Form liner, expansion joint assembler; Bottom man; Caulker and joiner and painter; Timber and chain saw man; Mechanical grouters; Automatic concrete power curbing machines; Stresser or stretcherman on post-tension or pre-stressed concrete on or off the job; Powderman helpers

GROUP 4 - Form tamper; Air, gas and electric tool operators, vibrators, barco hammer, paving breakers, spaders, tampers; electric drills, hammers and jack hammers; Tree groundmen; Chuck tenders; Drill helpers, tool room men and checkers; Sandblaster helper; Concrete processing material and monitors; Cement finishers helpers; Stringman on paving work

GROUP 5 - Fence erectors; Handling and placing of metal mesh, dowel bars, reinforcing bars and chairs; Dumpmen and spotters; Carrying reinforcing rods; Corrugated culvert pipe; Concrete drainage pipe; Stake chaser, seeding, mulching and planting of trees, shrubs and flowers; Water boy; Common laborers; Rodmen; Tending to carpenters; Hot asphalt labor

DECISION NO. IA76-4149

DECISION NO. JA76-4149

## HEAVY &amp; HIGHWAY CONSTRUCTION

## POWER EQUIPMENT OPERATORS:

Group 1  
Group 2  
Group 3

## TRUCK DRIVERS

Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
	H & W	Pensions	Vacation		
\$ 7.30	.40	.40			.03
6.90	.40	.40			.03
6.50	.40	.40			.03
6.34	.35				

## POWER EQUIPMENT OPERATORS (HEAVY &amp; HIGHWAY CONSTRUCTION) CLASSIFICATION DEFINITIONS

**GROUP 1** - Power Shovel, Crane, Backhoe and Dragline; Central Mix Plant Operator; Dredge Engineer; Dredge Foreman; Paver or Spreader Operator; Hoisting Engineer (Steel Erection); Motor Patrol; Piledriver Machine; Concrete Mixer, Tow or Push Boat Operator; Master Mechanic; C.M.I. Subgrader (or equivalent); Asphalt Plant; Front Endloader; Scraper; Bulldozer; Push Cat; Tractor Pulling; Scraper; Sideboom Tractor; Turn or Rotary Drill; Trenching Machine (Cleveland 80 or similar capacity); Asphalt Laydown; Asphalt Screed; Asphalt Heater-Planer Unit; Asphalt Roller; Self-Propelled Elevating Grader or similar machine; Spreader (Concrete); Horizontal Boring Machine; Mechanics-Welders; Group Equipment Greaser; Concrete Pump; Self-Propelled Curb Machine

**GROUP 2** - Concrete Curb Breaker; Concrete Widening Machine; Paving Breaker; Barger-Greene, Hais Loader or similar machine; Tractor Pulling Ripper, Disc, Sheepsfoot or Flat Roller; Self-Propelled Sheepsfoot Roller; Self-Propelled Roller (other than asphalt); Distributor; Screening and Washing Plant; Self-Propelled Vibrating Compactor; Trenching Machine (other than above); Steel Placing Machine; Conveyor; Finishing Machine (on concrete); Flexplane; Bull Float; Form Grader

**GROUP 3** - Boiler; Mechanical Broom; Oiler or Mechanics Helper or Group Greaser Helper; Farm-type Tractor (pulling disc, harrow or roller); Welding Machine; Pump Operator (other than dredge); Boom and Winch Truck; Compressor; Tank Car Heater (combination boiler and booster); Pumps on Well Points and Deep Wells for Dewatering; Truck Crane Combination Driver-Oiler; Concrete Curbing Machine; Safety Boat Operator; Batch Plant (Dry)

DECISION NO. NV76-5083

SUPERSEDES DECISION

STATE: Nevada  
 COUNTY: Statewide (excluding the Nevada Test Site and Tonopah Test Range), Nevada  
 DATE: Date of Publication

Supersedes Decision Number NV76-5069 dated July 30, 1976, in 41 FR 32150.  
 DESCRIPTION OF WORK: Building construction (excluding single family homes and garden type apartments up to and including 4 stories), heavy and highway construction.

	Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
		H & W	Pensions	Vacation		
<b>ASBESTOS WORKERS:</b> Clark, Esmeralda, Lincoln, Nye Counties Elko, Eureka, White Pine Counties Remaining Counties	\$11.36 9.99 13.06 12.00	.78 .52 .90 .75	\$1.02 1.02 1.02 1.00			.02
<b>BOILERMAKERS</b> <b>BRICKLAYERS:</b> Stonemasons: Clark, Esmeralda, Lincoln, Nye County (south of Hwy. #6) Remaining Counties and Nye County (north of Hwy. #6): Zone A: 0-15 miles from Courthouse in Reno, Nevada Zone B: 15-35 miles from Courthouse in Reno, Nevada Zone C: 35-75 miles from Courthouse in Reno, Nevada	10.87 10.75 11.25 11.65	.45 .45 .45 .45	.50 .45 .45 .45			.06 .01 .01 .01
<b>BRICK TENDERS:</b> Clark, Esmeralda, Lincoln, Nye Counties Remaining Counties: Zone A: 0-35 miles from the Courthouse in Reno, Nevada Zone B: 35-75 miles from the Courthouse in Reno, Nevada	7.77 9.10 10.00	.36 .50 .50	1.25 .90 .90	1.00 .55 .55		
<b>CARPENTERS:</b> Clark, Esmeralda, Lincoln, Nye County (south of Hwy. #6, including City of Tonopah): Zone 1: Area within the city limits of Henderson, Nevada, and Boulder City, Nevada; area within a 10 mile radius of Las Vegas, Nevada; area within a 5 mile radius of Tonopah, Nevada; present fenced area of Nellis Air Force Base, as well as that area adjacent to Nellis Air Force Base bounded on the North by the Nellis spur track and on the West by the train line of the Union Pacific Railroad; Zone 2: Area outside of Zone 1 and not more than 20 miles from the communities described above; Zone 3: Area over 20 miles and not more than 40 miles from the communities described above; Zone 4: Area over 40 miles from the communities described above;	\$10.46 10.61 10.66 11.06 10.96 11.11 11.16 11.56 11.21 11.36 11.41 11.81 12.71 12.86 12.91 13.31	.55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55	.90 .90 .90 .90 .90 .90 .90 .90 .90 .90 .90 .90 .90 .90 .90 .90	\$1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00		.10 .10 .10 .10 .10 .10 .10 .10 .10 .10 .10 .10 .10 .10 .10 .10

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$10.85	.65	\$1.01	\$1.00	.05
11.00	.65	1.01	1.00	.05
11.05	.65	1.01	1.00	.05
11.45	.65	1.01	1.00	.05
8.90	1.00	.40	2.00	.08
9.15	1.00	.40	2.00	.08
10.10	.65	.75	1.00	.03
10.35	.65	.75	1.00	.03
10.60	.65	.75	1.00	.03

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$9.35	.65	\$1.01	\$1.00	.05
9.50	.65	1.01	1.00	.05
9.55	.65	1.01	1.00	.05
9.95	.65	1.01	1.00	.05
9.95	.65	1.01	1.00	.05
10.10	.65	1.01	1.00	.05
10.15	.65	1.01	1.00	.05
10.55	.65	1.01	1.00	.05
10.15	.65	1.01	1.00	.05
10.30	.65	1.01	1.00	.05
10.35	.65	1.01	1.00	.05
10.75	.65	1.01	1.00	.05

CARPENTERS (Cont'd):  
 Nye County (north of Hwy. #6, excluding City of Tonopah) and all Remaining Counties (Cont'd):  
 Zone 4: Area over 40 road miles from the above communities:  
 Carpenter  
 Floor layer; Patent Scaffold Erector; Power Saw Operator  
 Piledrivermen  
 Millwrights  
 CEMENT MASONS:  
 Clark, Esmeralda, Lincoln, Nye Counties:  
 Cement Masons  
 Cement Floor Finishing Machine and Color Work  
 Lake Tahoe Area:  
 Cement Masons  
 Mastic, Magnesite and all Troweling Machine; Grinder Operator and Kelly Float  
 Remaining Counties:  
 Zone 1: Area within a 15 mile radius of the Main Post Office, Reno, Nevada, or within a 15 mile radius of the employee's permanent residence in the State of Nevada; also area within a 7 mile radius of the Main Post Office, Carson City, Nevada:  
 Cement Masons  
 Mastic, Magnesite and all Composition Masons  
 Troweling Machine; Grinder Operator and Kelly Float

CARPENTERS (Cont'd):  
 Nye County (north of Hwy. #6, excluding City of Tonopah) and all Remaining Counties:  
 Zone 1: Area within 5 road miles of the following communities: Carson City, Ely, Fallon, Hawthorne, Lovelock, Minden, Winnemucca; also area within 10 road miles of Reno, Nevada; also the area within 2 road miles of Yerington, Nevada; also Washoe Valley between Reno, Nevada, and Carson City, Nevada, but not including any area further than the foot of the mountains to the east or west side of Washoe Valley; also the area of Stead Air Force Base:  
 Carpenter  
 Floor layer; Patent Scaffold Erector; Power Saw Operator  
 Piledrivermen  
 Millwrights  
 Zone 2: Area outside of Zone 1 and not more than 20 road miles from the above communities:  
 Carpenter  
 Floor layer; Patent Scaffold Erector; Power Saw Operator  
 Piledrivermen  
 Millwrights  
 Zone 3: Area over 20 and not more than 40 road miles from the above communities:  
 Carpenter  
 Floor layer; Patent Scaffold Erector; Power Saw Operator  
 Piledrivermen  
 Millwrights



	Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
		H & W	Pensions	Vocation		
PLASTERERS: Clark, Esmeralda, Lincoln, Nye Counties Remaining Counties	\$9.98 9.35	\$1.00 .50	.40 1.00	\$1.20	.08	
PLASTER TENDERS: Statewide except Clark, Esmeralda, Lincoln, Nye County (south half)	7.75	.50	.45			
PLUMBERS: Steamfitters: Clark, Esmeralda, Lincoln, Nye County (south half) Remaining Counties and Nye County (north half)	11.05 10.64	1.05 .73	1.90 .80	1.85 1.95	.08 .10	
PLUMBERS (Utility): Statewide except Clark, Esmeralda, Lincoln, Nye County (south half)	10.64 5.60	.73 .73	.80 .10	1.95 .50	.10 .10	
PLUMBER HELPER (Utility)	11.68	.65				
ROOFERS: Clark, Esmeralda, Lincoln, Nye County (south half) Remaining Counties and Nye County (north half)	10.10	.45	.20		.02	
SHEET METAL WORKERS: Clark, Esmeralda, Lincoln, Nye County (south half), White Pine Counties Remaining Counties and Nye County (north half)	10.23 9.40	.83 .94	1.60 1.80	1.00 .94	.07 .05	
SOFT FLOOR LAYERS: Clark, Esmeralda, Lincoln, Nye Counties Remaining Counties including Lake Tahoe Area	12.12 10.80 14.80	.40 .70 .60			.15 2.4% .08	
SPRINKLER FITTERS			.20 .90			

	Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
		H & W	Pensions	Vocation		
IRONWORKERS (Cont'd): Remaining Counties: Fence Erector Ornamental; Reinforcing; Structural	\$10.14 11.03	\$1.09 1.09	\$1.83 1.83	\$1.15 1.15	.04 .04	
LATHERS: Clark, Esmeralda, Lincoln, Nye Counties Remaining Counties	9.30 10.86	.50 .56	1.00 .20	1.00	.06 .01	
LINE CONSTRUCTION WORKERS: Clark, Lincoln, Nye County (south half): Line Equipment Operator Cable Splicers Lake Tahoe Area:	12.90 5%overJR 10.34 9.31 7.76 11.37	.73 .73 .53 .53 .53 .53	1% 1% 1% + .25 1% + .25 1% + .25 1% + .25		3/4% 3/4% .03 .03 .03 .03	
Remaining Counties (excluding Lake Tahoe Area): Lineman Line Equipment Operator Groundman Cable Splicer	9.59 8.63 7.19 10.55	.53 .53 .53 .53	1% + .25 1% + .25 1% + .25 1% + .25		.03 .03 .03 .03	
PAINTERS: Clark, Esmeralda, Lincoln, Nye County (south half): Brush; Roller Paperhangers; Spray; Steel; Swing Stage; Sandblasters; Sign; Tapers Buffing Steel; Sandblasters; Structural Steel Steeplejack Nye County (north half) and Remaining Counties including Lake Tahoe Area: Brush Paperhangers; Spray; Structural Steel; Swing Stage; Sandblaster; Tapers	10.72 11.07 11.32 12.22 10.95 11.20	.75 .75 .75 .75 .70 .70	.35 .35 .35 .35 .75 .75		.05 .05 .05 .05 .05 .05	

Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
	H & W	Pensions	Vacation		
\$7.63	.51	\$1.25	\$1.00		
7.68	.51	1.25	1.00		
7.71	.51	1.25	1.00		
7.73	.51	1.25	1.00		
7.75	.51	1.25	1.00		
7.76	.51	1.25	1.00		
7.78	.51	1.25	1.00		
7.81	.51	1.25	1.00		
7.82	.51	1.25	1.00		
7.84	.51	1.25	1.00		
7.89	.51	1.25	1.00		
7.92	.51	1.25	1.00		
7.94	.51	1.25	1.00		
7.97	.51	1.25	1.00		
7.99	.51	1.25	1.00		
8.055	.51	1.25	1.00		
8.08	.51	1.25	1.00		
8.15	.51	1.25	1.00		

LABORERS:  
Clark, Esmeralda, Lincoln, Nye Counties:

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5
- Group 6
- Group 7
- Group 8
- Group 9
- Group 10
- Group 11
- Group 12
- Group 13
- Group 14
- Group 15
- Group 16
- Group 17
- Group 18

POWER EQUIPMENT OPERATORS:  
(Except Piledriving and Steel Erection)  
Clark, Esmeralda, Lincoln, Nye Counties:

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5
- Group 6
- Group 7
- Group 8
- Group 9

Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
	H & W	Pensions	Vacation		
\$10.87	.45	.50		.06	
10.75	.45	.45		.01	
11.25	.45	.45		.01	
11.65	.45	.45		.01	

TERRAZZO WORKERS; TILE SETTERS:  
Clark, Esmeralda, Lincoln, Nye County (south half)  
Remaining Counties and Nye County (north half):

- Zone A: 0-15 miles from Courthouse in Reno, Nevada
- Zone B: 15-35 miles from Courthouse in Reno, Nevada
- Zone C: 35-75 miles from Courthouse in Reno, Nevada

FOOTNOTE:

a. Employer contributes 4% basic hourly rate for over 5 years' service and 2% basic hourly rate for 6 months' to 5 years' service as Vacation Pay Credit.  
Six Paid Holidays: A through F.

PAID HOLIDAYS:

A-New Year's Day; B-Memorial Day; C-Independence Day; D-Labor Day; E-Thanksgiving Day; F-Christmas Day.

LABORERS  
(Clark, Esmeralda, Lincoln and Nye Counties)

Group 1: Debris Handler; Dry Packing of Concrete and Filling of Form-bolt Holes; Dumpman; Gas and Oil Pipeline Laborers; Demolition Laborers; General or Construction Laborers; Spotter; Window Cleaner

Group 2: Cutting Torch Op. (Demolition); Tarman and Motorman

Group 3: Guinea Chaser

Group 4: Fine Grader, highway and street paving, airport, runways and similar type heavy construction; Landscape Gardener and Nursery-Man

Group 5: Laborers - packing rod steel and pans

Group 6: Underground Laborer including caisson bellows

Group 7: Chucktender (except tunnels); Scaler; Septic Tank Digger and Installer (lead man); Tank Scaler and Cleaner

Group 8: Cesspool Digger and Installer

Group 9: Concrete Curer-impervious membrane and Oiler of all materials; Making and caulking of all non-metallic pipe joints; Riprap Stonepaver; Sandblaster (pot tender)

Group 10: Asphalt Ironer, Raker, Spreader; Buggymobile Man; Cement Dumper (on 1 yd. or larger mixers and handling bulk concrete); Cement Grinding Machine Op.; Concrete Core Cutter; Concrete Saw Man, excluding tractor type; Gas and Oil Pipeline Wrapper Pot Tender and Form Man; Tree Climber, faller, chain saw operator; Pittsburgh Chipper and similar type; Vibrators and all pneumatic gas, electric, and similar mechanical tools not separately classified herein; Roto Scraper

Group 11: Rock Slinger; Scaler, using bosun chair, safety belt or power tools

Group 12: Driller and/or Pavement Breaker

Group 13: Laying of all Non-metallic Pipe (including sewer pipe, drain pipe and underground tile)

Group 14: Gas and Oil Pipeline Wrapper - 6 inch pipe and over

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$8.45	.40	.60		
8.56	.40	.60		
8.61	.40	.60		
8.77	.40	.60		
8.95	.40	.60		
9.45	.40	.60		

TRUCK DRIVERS:  
Clark, Esmeralda, Lincoln, Nye  
County (south of Hwy. #6):

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5
- Group 6

## LABORERS (Cont'd)

(Clark, Esmeralda, Lincoln and Nye Counties)

Group 15: Cribber or Shorer; Powderman

Group 16: Steel Headerboard Man

Group 17: Driller (Core, Diamond or Wagon) Joy Driller Model TW-M-2A, Gardner-Denver Model DR-163 and similar drills; Sandblaster - Nozzleman

Group 18: Head Rock Slinger

POWER EQUIPMENT OPERATORS  
(Except Pile-driving & Steel Erection)

Clark, Esmeralda, Lincoln and Nye Counties

Group 1: Brakeman; Compressor Operator; Engineer Oiler; Generator; Heavy Duty Repairman Helper; Pump; Signalman; Switchman

Group 2: Concrete Mixer Operator, Skip Type; Conveyor Operator; Fireman; Generator, Pump or Compressor, (2-5 inclusive); Generator, Pump or Compressor Portable Units (over 5 units, 10¢ per hour for each additional unit up to nine units); Hydrostatic Pump; Oiler Crusher, (Asphalt or Concrete Plant); Plant Operator, Generator, Pump or Compressor; Skip-loader - Wheel type up to 3/4 yd. w/o attachment; Soils Field Technician; Tar Pot Fireman; Temporary Heating Plant; Trenching Machine Oiler; Truck Crane Oiler; Rotary Drill Helper (Oilfield)

Group 3: A-Frame or Winch Truck; Elevator Operator (inside); Equipment Greaser (rack); Ford, Ferguson (with dragtype attachments); Helicopter Radioman (ground); Power Concrete Curing Machine; Power Concrete Saw; Power-driven Jumbo Form Setter; Ross Carrier; Stationary Pipe Wrapping and Cleaning Machine

Group 4: Asphalt Plant Fireman; Boring Machine; Boxman or Mixerman (Asphalt or Concrete); Chip Spreading Machine; Concrete Pump (small portable); Bridge Type Unloader and Turntable; Dinky Locomotive or Motorman (up to and including 10 tons); Equipment Greaser (grease truck); Helicopter Hoist; Highline Cableway Signalman; Hydra-Hammer - Aero Stomper; Power Sweeper; Roller (compacting); Screed (Asphalt or Concrete); Trenching Machine (up to 6 feet)

Group 5: Asphalt Plant Engineer; Concrete Batch Plant; Backhoe (up to and including 3/4 yds), Bit Sharpener; Concrete Joint Machine (Canal and similar type); Concrete Planer; Deck Engine; Forklift (under 5 ton capacity); Machine Tool; Maginnis Internal Full Slab Vibrator; Mechanical Berm (curb or gutter concrete or asphalt); Mechanical Finisher (concrete); Clary-Johnson-Bidwell or similar; Pavement Breaker; Road Oil Mixing Machine; Roller (asphalt or finish); Rubber-tired Earth Moving Equipment, (single engine, up to and including 25 yards struck); Self-propelled Tar Pipelining Machine; Slip Form Pump (power-driven hydraulic lifting device for concrete forms); Tugger Hoist (1 drum); Tunnel Locomotive (over 10 and up to and including 30 tons); Stinger Crane (Austin-Western or similar type); Skiploader Crawler and Wheel type over 3/4 yds. and up to and including 1-1/2 yards); Tractor-Bulldozer, Tamper, Scraper (single engine, up to 100 HP, Flywheel and similar types, up to and including D-5 and similar types)

Group 6: Asphalt or Concrete Spreading (Tamping or Finishing); Asphalt Paving Machine (Barber Greene or similar type); BHL Lima Road Factor or similar; Bridge Crane; Pipe Laying Machine (Cast in place); Combination Mixer and Compressor (Gunitite Work); Concrete Pump (truck mounted);

POWER EQUIPMENT OPERATORS (Cont'd)  
(Except Piledriving & Steel Erection)

Clark, Esmeralda, Lincoln and Nye Counties

Concrete Mixer; Crane (up to and including 25 tons); Crushing Plant; Elevating Grader; Forklift (over 5 tons); Grade Checker; Gradaall; Grouting Machine; Heading Shield; Heavy Duty Repairman; Hoist (Chicago Boom and similar type); Kolman Belt Loader and similar type; LeTourneau Blob Compactor or similar type; Lift Slab Machine (Vagtborg and similar types); Lift Mobile; Loader-Athey, Euclid, Sierra and similar type; Material Hoist; Mucking Machine 1/4 yd. - rubber-tired, rail or track type); Pneumatic Concrete Placing Machine (Hackley-Presswell or similar type); Pneumatic Heading Shield (Tunnel); Pumpcrete Gun; Rotary Drill (excluding Caisson type); Rubber-tired Earth Moving Equipment Operator (single engine - Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cubic yards truck); Rubber-tired Scraper (self-loading - Paddle Wheel Type - John Deere, 1040 and similar single unit); Skiploader (Crawler and Wheel type - over 1-1/2 yards, up to and including 6-1/2 yards); Surface Heater and Planers; Rubber-tired Earth Moving Equipment, multiple engine (up to and including 25 yards, truck); Trenching Machine (over 6 feet depth capacity, manufacturers rating); Tower Crane; Tractor Compressor Drill Combination; Tractor (any type larger D-5 - 100 Flywheel HP and over or similar) (Bulldozer, Tamper, Scraper and Push Tractor single engine); Tractor (Boom attachments); Traveling Pipe Wrapping, Cleaning and Bending; Tunnel Locomotive (over 30 tons); Shovel, Backhoe, Dragline, Clamshell (over 3/4 yard and up to 5 cubic yards, M.R.C.)

Group 7: Crane (Over 25 tons up to and including 100 tons M.R.C.; Derrick Barge, Dual Drum Mixer; Hoist, Stiff Legs, Guy Derrick, or similar type, up to and including 100 tons; Monorail Locomotive (Diesel, gas or electric); Motor, Patrol - Blade Operator (single engine); Multiple Engine Tractor Operator (Euclid and similar type except Quad 9 Cat); Rubber-tired Earth Moving Equipment (single engine over 50 yards truck); Rubber-tired Earth Moving Equipment (Multiple, engine, Euclid, Caterpillar and similar) (Over 25 yards and up to 50 cubic yards truck); Tractor Loader Operator (Crawler and Wheel type over 6-1/2 yards); Tower Crane Repairman; Shovel, Backhoe, Dragline, Clamshell Operator (over 5 cubic yards, MRC); Woods Mixer and similar Pugmill Equipment; Heavy Duty Repairman - Welder Combination

Group 8: Auto Grader; Automatic Slip Form; Crane (over 100 tons); Hoist, Stiff Legs, Guy Derricks or similar types (capable of hoisting 100 tons or more); Mass Excavator (less than 750 cubic yards); Mechanical Finishing Machine; Mobile Form Traveler; Motor Patrol (Multi engine); Pipe Mobile Machine; Rubber-tired Earth Moving Equipment (multiple engine, Euclid, Caterpillar and similar type over 50 cubic yards truck); Rubber-tired Self Loading Scraper (Paddle Wheel - Auger type self-loading (2 or more units); Tandem Equipment (2 units only); Tandem Tractor (Quad 9 or similar type); Tunnel Mole Boring Machine; Rubber-tired Scraper (pushing without Push Cat, Push-Pull (50c per hour additional)

POWER EQUIPMENT OPERATORS (Cont'd)  
(Except Piledriving & Steel Erection)

Clark, Esmeralda, Lincoln and Nye Counties

Group 9: Canal Liner; Canal Trimmer; Helicopter Pilot; Highline Cableway; Wheel Excavator (over 750 cubic yards); Remote Controlled Earth Moving Equipment (\$1.00 per hour additional to base rate)

## TRUCK DRIVERS

Clark, Esmeralda, Lincoln and Nye (South of Hwy. #6) Counties

Group 1: Dump Trucks (less than 12 yards); Trucks (legal payload capacity less than 15 tons); Water and Fuel (under 2500 gallons); Pickups; Service; Repairman Helper; Drivers of Buses (on jobsite used for transportation of up to 25 passengers)

Group 2: Dump Trucks (12 yards but less than 16 yards); Trucks (legal payload capacity between 15 and 20 tons); Gas and Oil Pipeline Working Truck Driver (including winch truck and all sizes of trucks); Water and Fuel (2500 gallons to 4000 gallons); Truck Greaser and Tireman; Drivers of Buses (on jobsite used for transportation of more than 25 passengers); Road Oil Spreading Truck; Time spent Spreading Oil

Group 3: Transit-mix (less than 3 yards); Dumpcrete (less than 6 1/2 yards)

Group 4: Dump Trucks (16 yards up to and including 22 yards); Trucks (legal payload capacity 20 tons but less than 30 tons); Euclid-type Spreader Trucks; Dumpster; Transit-mix Trucks (3 yards but less than 6 yards); Dumpcrete (6 1/2 yards and over); Fork Lift; Ross Carrier; Highway Water and Fuel Truck (4000 but less than 6000 gallons)

Group 5: Transit-mix (6 yards or more); Truck Repairman; Dump Trucks (Over 22 yards); Trucks (legal payload capacity 20 tons and over); Fuel and Water Trucks (6000 gallons and over)

Group 6: D. W. and similar type equipment, D. W. 10 and D. W. 20; Euclid-type equipment, LeTourneau Pulls, Terra Cobras and similar types of Equipment; also PB and similar type trucks when performing work within Teamster jurisdiction, regardless of types of attachment including power units pulling off Highway Belly Dumps in tandem

LABORERS (Cont'd): Remaining Counties (Cont'd): Building construction (Cont'd): Zone 3: Area over 20 and not more than 40 road miles from the above communities: Group 1 Group 2 Group 3 Group 4 Group 5 Group 6-A Group 6-B Group 6-C Zone 4: Area over 40 road miles from the above communities: Group 1 Group 2 Group 3 Group 4 Group 5 Group 6-A Group 6-B Group 6-C Area 1: Highway construction: Group 1 Group 2 Group 3 Group 4 Group 5 Group 6-A Group 6-B Group 6-C	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
Basic Hourly Rates	.50	.90		.10
\$8.55	.50	.90		.10
8.65	.50	.90		.10
8.80	.50	.90		.10
9.05	.50	.90		.10
9.35	.50	.90		.10
9.35	.50	.90		.10
9.05	.50	.90		.10
8.70	.50	.90		.10
9.25	.50	.90		.10
9.35	.50	.90		.10
9.50	.50	.90		.10
9.75	.50	.90		.10
10.05	.50	.90		.10
10.05	.50	.90		.10
9.75	.50	.90		.10
9.40	.50	.90		.10
7.75	.50	.90		.10
7.85	.50	.90		.10
8.00	.50	.90		.10
8.25	.50	.90		.10
8.55	.50	.90		.10
8.55	.50	.90		.10
8.25	.50	.90		.10
7.90	.50	.90		.10
8.35	.50	.90		.10
8.45	.50	.90		.10
8.60	.50	.90		.10
8.85	.50	.90		.10
9.15	.50	.90		.10
9.15	.50	.90		.10
8.85	.50	.90		.10
8.50	.50	.90		.10

LABORERS: Remaining Counties: Building construction: Zone 1: Area within 5 road miles of the following com- munities - Carson City, Elko, Fallon, Hawthorne, Lovelock, Minden, Tonopah, Winnemucca; also area within 10 road miles of Reno, Nevada; also the area within 2 road miles of Yerington, Nevada; also Washoe Valley between Reno, Nevada, and Carson City, Ne- vada, but not including any area further than the foot of the mountains to the east or west side of Washoe Valley; also the area of Stead Air Force Base; also the Tahoe Basin from the Summit to the Lake: Group 1 Group 2 Group 3 Group 4 Group 5 Group 6-A Group 6-B Group 6-C Zone 2: Area outside of Zone 1 and not more than 20 road miles from the above com- munities: Group 1 Group 2 Group 3 Group 4 Group 5 Group 6-A Group 6-B Group 6-C	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
Basic Hourly Rates	.50	.90		.10
\$7.75	.50	.90		.10
7.85	.50	.90		.10
8.00	.50	.90		.10
8.25	.50	.90		.10
8.55	.50	.90		.10
8.55	.50	.90		.10
8.25	.50	.90		.10
7.90	.50	.90		.10
8.35	.50	.90		.10
8.45	.50	.90		.10
8.60	.50	.90		.10
8.85	.50	.90		.10
9.15	.50	.90		.10
9.15	.50	.90		.10
8.85	.50	.90		.10
8.50	.50	.90		.10

LABORERS  
(Remaining Counties)

GROUP 1: All cleanup work of debris, grounds, and buildings including windows and tile; Dumpman or spotter (other than asphalt); General laborer; Gardeners and landscape laborers; Limber, brushloader and piler

GROUP 2: Choker setter or rigger (clearing work only); Pittsburgh chipper and similar type brush shredders; Concrete worker (wet or dry) all concrete work not listed in Group 3; Crusher or Grizzly tender; Guinea chaser (stakeman); Panel forms (wood or metal) handling, cleaning, and stripping off; Loading and unloading, carrying and handling of all rods and material for use in reinforcing concrete; Railroad trackmen (maintenance, repair or builders); Sloper; Semi-skilled wreckers (salvaging of building materials other than those listed in Group 3); Greasing Dowels

GROUP 3: Asphalt workers (ironers, shoveler, cutting machine); Buggy-mo-bile; Chainsaw, faller, logloader and bucket; Compactor (all types); Concrete mixer under 1/2 yds.; Concrete pan work (breadpan type); (handling, cleaning, stripping); Concrete saw, chipping, grinding, sanding, vibrator; Cribbing, shoring, lagging, trench jacking, hand-guided lagging hammer; Curbing or divider machine; Cur. setter (precast or cut); Ditching machine (hand-guided); Drillers' helper, chuck tender; Form raiser, slip forms; Grouting of concrete walls, windows and door jams; Headerboardman; Jackhammer, pavement breaker, air spade; Mastic workers (wet or dry); Pipe wrapper, kettleman, potman, and men applying asphalt, creosote and similar type materials; All power tools (air, gas or electric) not listed in Group 5; Pipejacking; Posthole digger (air, gas or electric) Post driver; Riprap-stonepaver and rock slinger, incl. placing of sack concrete wet or dry; Rototiller; Rigging and signaling in connection with laborers' work; Sandblaster, potman, gunman or nozzle-man; Vibra-screed; Skilled wrecker (removing and salvaging of sash, windows, doors, plumbing and electrical fixtures)

GROUP 4: Burning and welding in connection with laborers' work; Joy Drill Model TWM-2A, Gardner Denver Model DN 143 and similar type drills; Track drillers, Diamond core drillers, Wagon drillers, Mechanical drillers on multiple units, High scalers; Concrete pump; Heavy duty vibrator with stinger 5" diameter or over; Pipelayer, caulker and bander; Pipelayer - waterline, sewerline, gasoline or conduit; Asphalt rakers

GROUP 5: Blasters and powdermen, all work of loading, placing and blasting of all powder and explosives of any type, regardless of method used for such loading and placing.

GROUP 6-A: Nozzleman, Rodman

GROUP 6-B: Gunman, Materialman

GROUP 6-C: Reboundman

LABORERS (Cont'd): Remaining Counties (Cont'd): Highway construction (Cont'd): Area 2:	Fringe Benefits Payments				Education and/or Appr. Tr.
	Basic Hourly Rates	H & W	Pensions	Vacation	
Group 1	8.90	.50	.90		.10
Group 2	9.00	.50	.90		.10
Group 3	9.15	.50	.90		.10
Group 4	9.40	.50	.90		.10
Group 5	9.70	.50	.90		.10
Group 6-A	9.70	.50	.90		.10
Group 6-B	9.40	.50	.90		.10
Group 6-C	9.05	.50	.90		.10

POWER EQUIPMENT OPERATORS  
(Except Pile-driving & Steel Erection)  
(Remaining Counties)

GROUP 1: Assistant to Engineer, including brakeman, deckhand, fireman, heavy duty repairman helper, oiler, partsman (heavy duty repair shops parts room when needed), switchman, tar pot fireman

GROUP 2: Compressor; Material loader and/or conveyor (handling building materials); Pump; Tar pot fireman (power agitated)

GROUP 3: Box Operator (Bunker); Concrete curing machines (streets, highways, airports, canals); Conveyor belt (tunnel); Engineer generating plant (500 K.W.); Fireman hot plant; Hydraulic monitor; Lubrication and service engineer (mobile and grease rack); Mixer box operator (concrete plant); Motorman; Rodman or chairman; Rotomist; Screedman (except asphaltic or concrete paving); Oiler (truck crane)

GROUP 4: Ballast Jack Tamper; Ballast regulator; Ballast tamper multi-purpose; Boxman (asphalt plant); Concrete mixer, skip type; Dinky; Fork lift (construction job site); Ross carrier; Skip loader (under 1 cu. yd.); Tie spacer; Line Master

GROUP 5: Concrete Mixer (over 1 cu. yd.); Concrete pumps or pumpcrete guns; Elevator and material hoist (1 drum); Screedman (Barber-Greene and similar) (asphaltic or concrete paving); Shuttle car; Signalman

GROUP 6: Boom Truck or Dual Purpose "A" Frame Truck; B.L.H. Lima road pactor or similar; Chip box spreader (Flaherty type or similar); Concrete batch plant (wet or dry); Concrete saws (highways, streets, airports, canals); Highline cableway signalman; Locomotive (over 30 tons); Maginnis International Full Slab Vibrator (airports, highways, canals, warehouses); Mechanical burn, curb and/or curb gutter machine (concrete or asphalt); Power jumbo (setting slip forms, etc., in tunnels); Roller (except asphalt); Self-propelled compactor (single engine); Slip form pump (power driven by hydraulic, electric, air, gas, etc., lifting device for concrete forms); Stationary pipe wrapping, cleaning and bending machine; Pavement breaker or tamper (with or without compressor combination); Pavement breaker, truck mounted, with compressor combination; Small rubber-tired tractors, Self-propelled tape machine

GROUP 7: Compressor (over 2); Concrete conveyor; Concrete pump or concrete pump, truck or equipment mounted (boom length to apply); Crusher plant engineer; Deck engineer; Drilling and boring machinery, vertical and horizontal (not to apply to waterliners, wagon drills or jackhammers); Generators; Grade setters; Grade checker; Instrument man; Kolman loader; Material hoist (2 or more drums); Mechanical finishers or spreader machine (asphalt, Barber-Greene and similar); Mine or shaft hoist; Pipe bending machines (pipelines only); Pipe cleaning machines (tractor propelled and supported); Pipe wrapping machines (tractor propelled and supported); Portable crushing and screening plants; Pumps (over 2); Refrigeration plant; Self-propelled boom type lifting device (Center Mount) (10 ton cap. or less); Slusher; Soil tester (certified); Surface heater and planer; Trenching machine (maximum digging capacity

POWER EQUIPMENT OPERATORS: (Except Pile-driving and Steel Erection): Remaining Counties:	Fringe Benefits Payments				Education and/or Appr. Tr.
	Basic Hourly Rates	H & W	Pensions	Vacation	
Group 1	\$8.75	\$1.12	\$2.23	.92	.20
Group 2	9.12	1.12	2.23	.92	.20
Group 3	9.32	1.12	2.23	.92	.20
Group 4	9.84	1.12	2.23	.92	.20
Group 5	10.05	1.12	2.23	.92	.20
Group 6	10.17	1.12	2.23	.92	.20
Group 7	10.34	1.12	2.23	.92	.20
Group 8	10.72	1.12	2.23	.92	.20
Group 9	10.94	1.12	2.23	.92	.20
Group 10	11.17	1.12	2.23	.92	.20
Group 10-A	11.29	1.12	2.23	.92	.20
Group 11	11.46	1.12	2.23	.92	.20
Group 11-A	12.34	1.12	2.23	.92	.20
	AREA 1				
	AREA 2				
	\$9.90				
	10.27				
	10.47				
	10.99				
	11.20				
	11.32				
	11.49				
	11.87				
	12.09				
	12.32				
	12.44				
	12.61				
	13.69				

POWER EQUIPMENT OPERATORS (Cont'd)  
(Except Piledriving and Steel Erection)  
(Remaining Counties)

3 ft. depth) Truck type loader; Welding machines (gasoline or diesel); Roller (Asphalt)

GROUP 8: Asphalt Plant Engineer; Car Passer; Cast-in-place pipe laying machine; Combination slusher and motor; Dozer; Concrete batch plant (multiple units); Elevating grader; Grooving and Grinding machine (Highways); Heavy-duty repairman and/or welder; Ken-seal; Loader (up to and including 2 1/2 cu. yds.); Mechanical trench shield; Mixer/mobile; Push cats; Road oil mixing machine; Wood-mixer (and other similar pugmill equipment); Rubber-tired earthmoving equipment (up to and including 35 cu. yds. "struck," M.R.C., Euclids, T-Pulls, D's 10, 20, 21 and similar); Self-propelled compactor with dozer, Sheepfoot; Small tractor (with boom); Soil stabilizer (P & H or equal); Timber skidder (rubber tire) or similar equipment; Tractor; Tractor drawn scraper; Tractor mounted compressor drill combination; Trenching machine (over 3 ft. depth); Tri-batch paver; Tunnel badger or tunnel boring machine; Tunnel mole boring machine

GROUP 9: Canal Finger Drain Digger; Chicago boom; Combination backhoe and loader (up to and including 3/8 yds.); Combination mixer and compessor (gunnite); Lull Hi-Lift (20 ft. or over); Mucking machine; Tractor with boom (D6 or larger); Track laying type earth moving machine (single engine with tandem scrapers); Sub-grader (Gurries or other types)

GROUP 10: Boom type backfilling machine; Bridge crane; Carry-lift or similar; Chemical grouting machine; Chief of party; Derricks; Derrick barges (except excavation work); Euclid loader & similar types; Heavy duty rotary drill rigs; Lift-slab (Vagtborg and similar types); Loader (over 2 1/2 cu. yds. up to and incl. 4 cu. yds.); Locomotive (over 100 tons) (single or multiple units); Multiple engine earth moving machines (Euclid, dozers, etc.); Pre-stress wire wrapping machine; Rubber tired scraper, self-loading; Self-propelled reservoir-debris equipment floating (200 H.P. and over); Shuttle car (Reclaim station); Single engine scraper (over 35 cu. yds.); Train loading station; Vacuum cooling plant; Whirley Crane (up to and incl. 25 tons); Trenching machine; Multi-engine with sloping attachments (JEFFCO or similar)

GROUP 10-A: Backhoe (up to and incl. 1 cu. yd. hydraulic); Backhoe (up to and incl. 1 cu. yd. (cable); Cranes (not over 25 tons) (hammerhead and Gantry); Grade-alls (up to and incl. 1 cu. yd.); Motor patrol; Power shovels, Clamshells, Draglines, Cranes (up to and incl. 1 cu. yd.); Rubber-tired scraper, self-loading (Twin engine); Self-propelled boom-type lifting device (Center Mount) (Over 10 tons)

POWER EQUIPMENT OPERATORS (Cont'd)  
(Except Piledriving and Steel Erection)  
(Remaining Counties)

GROUP 11: Automatic Asphalt or Concrete Slip Form Paver; Automatic railroad car dumper; Canal finger drain backfiller; Canal trimmer; Cranes (over 25 tons); Highline cableway operator; Loader (over 4 yds. up to and including 12 cu. yds.); Multi-engine earthmoving equipment (up to and including 75 cu. yds. "struck" M.R.C.); Power shovels, Clamshells, Draglines, Backhoes, Grade-alls (over 1 yd. and up to and including 7 cu. yds. M.R.C.); Self-propelled compactor (with multiple propulsion power units); Single engine rubber tired earth-moving machine (with tandem scraper); Slip form paver (concrete or asphalt); Tandem cats and scrapers; Tower crane mobile; Universal Liebherr and Tower cranes (and similar types); Wheel excavator (up to and including 750 cu. yds. per hour); Whirley cranes (over 25 tons)

GROUP 11-A: Band Wagons (in conjunction with wheel excavators); Loader (over 12 cu. yds.); Multi-engine earth moving equipment (over 75 cu. yds. "struck" M.R.C.); Operator of helicopter (when used in construction work); Power shovels and Draglines (over 7 cu. yds. M.R.C.); Remote controlled earth moving equipment; Wheel excavator (over 750 cu. yds. per hour)

DECISION NO. NV76-5082

TRUCK DRIVERS  
(Remaining Counties)

DUMP (Single or multiple units including semis, double and transfer units; Dumpcrete and bulk cement spreaders:  
Under 4 yards  
4 yards and under 8 yards  
8 yards and under 18 yards  
18 yards and under 35 yards  
35 yards and under 60 yards  
60 yards and under 75 yards  
75 yards and under 100 yards  
100 yards and over

Basic Hourly Rates	Basic Hourly Rates	Fringe Benefits Payments			
		H & W	Pensions	Vacation	App. Tr.
AREA I	AREA II				
\$ 8.45	\$ 9.60	.51	.65		.05
8.65	9.80	.51	.65		.05
8.85	10.00	.51	.65		.05
9.00	10.15	.51	.65		.05
9.25	10.40	.51	.65		.05
9.40	10.55	.51	.65		.05
9.55	10.70	.51	.65		.05
9.70	10.85	.51	.65		.05
8.85	10.00	.51	.65		.05
8.95	10.10	.51	.65		.05
9.15	10.30	.51	.65		.05
8.65	9.80	.51	.65		.05
8.85	10.00	.51	.65		.05
9.10	10.25	.51	.65		.05
8.65	9.80	.51	.65		.05
8.75	9.90	.51	.65		.05

TRANSIT MIX:  
Under 8 yards  
8 yards and including 12 yards  
Over 12 yards

WATER TRUCKS and Jetting Trucks:  
Up to 2,500 gallons  
2,500 gallons and over

DW 20's and 21's and other similar Cat type, Terra Cobra, LeTourneau Pulls, Tournorocker, Euclid and similar type equipment when pulling Aqua/Pak; Water tank trailers, fuel and/or grease tank, or other misc. trailers (except as defined under dump trucks)

FLATRACK; Industrial Lift with mechanical tailgate:  
Single unit 2 axle  
Single unit 3 axle

DECISION NV76-5083

AREA DEFINITIONS

Power Equipment Operators:  
(Except Piledriving and Steel Erection):  
Remaining Counties:

AREA 1: All of northern Nevada within the following lines:  
Commencing at the N.W. corner of township 22N, range 18E, Mount Diablo Baseline and Meridian at the California-Nevada border;  
Thence easterly to the N.E. corner of township 22N, range 22E;  
Thence southerly to the N.E. corner of township 20N, range 26E;  
Thence easterly to the N.W. corner of township 20N, range 26E;  
Thence northerly to the N.W. corner of township 22N, range 29E;  
Thence easterly to the N.W. corner of township 30N, range 29E;  
Thence northerly to the N.W. corner of township 30N, range 33E;  
Thence easterly to the N.E. corner of township 24N, range 33E;  
Thence southerly to the S.E. corner of township 24N, range 31E;  
Thence westerly to the S.E. corner of township 16N, range 31E;  
Thence southerly to the S.E. corner of township 16N, range 30E;  
Thence westerly to the S.E. corner of township 15N, range 30E;  
Thence southerly to the S.E. corner of township 15N, range 27E;  
Thence westerly to the S.E. corner of township 14N, range 27E;  
Thence southerly to the S.E. corner of township 14N, range 23E;  
Thence westerly to the S.E. corner of township 13N, range 23E;  
Thence southerly to the S.E. corner of township 13N, range 22E;  
Thence westerly to the S.E. corner of township 10N, range 22E;  
Thence easterly to the N.E. corner of township 10N, range 23E;  
Thence southerly along the easterly line of range 23E to the intersection of the California-Nevada border;

Thence north-westerly, then northerly following the California-Nevada border to the point of beginning.  
Area 1 also includes that portion of northern Nevada included within the following line:

Commencing at the S.W. corner of township 37N, range 52E;  
Thence easterly to the S.E. corner of township 37N, range 52E;  
Thence northerly to the N.E. corner of township 37N, range 52E;  
Thence easterly to the N.W. corner of township 37N, range 58E;  
Thence southerly to the S.W. corner of township 37N, range 58E;  
Thence easterly to the S.E. corner of township 37N, range 58E;  
Thence southerly to the N.E. corner of township 31N, range 58E;  
Thence westerly to the N.W. corner of township 31N, range 58E;  
Thence southerly to the S.W. corner of township 31N, range 58E;  
Thence westerly to the S.E. corner of township 31N, range 52E;  
Thence northerly to the N.E. corner of township 31N, range 52E;  
Thence westerly to the S.E. corner of township 32N, range 51E;  
Thence northerly to the point of beginning.

AREA 2: All areas not included within Area 1 as defined above.

TRUCK DRIVERS (Cont'd)  
(Remaining Counties)

BUS AND MANHAUL DRIVERS, Single unit

Pickup:  
Up to 18,000 pounds  
18,000 pounds and over

WINCH TRUCKS, A-FRAME:

Under 18,000 pounds  
18,000 pounds and over

HEAVY DUTY TRANSPORT (Highbed):

Heavy duty transport (gooseneck lowbed); Highbed or flatbed or flatbed pull trailers

BOOTMAN, Combination; Bootman and road roller

ROAD OIL TRUCKS OR BOOTMEN; Fuel driver; Fuel man and fuel island man

HELICOPTER PILOT (When transporting men or material)

LIFT JITNEYS AND FORK LIFTS

WAREHOUSEMAN SPOTTERS, Teamsters

TIRE REPAIRMAN

TRUCK REPAIRMAN

Basic Hourly Rates	Basic Hourly Rates	Fringe Benefits Payments			
		H & W	Pensions	Vacation	App. Tr.
AREA I	AREA II				
\$ 8.50	\$ 9.65	.51	.65	.05	.05
8.60	9.75	.51	.65	.05	.05
8.60	9.75	.51	.65	.05	.05
8.70	9.85	.51	.65	.05	.05
9.00	10.15	.51	.65	.05	.05
8.90	10.05	.51	.65	.05	.05
8.60	9.75	.51	.65	.05	.05
9.40	10.55	.51	.65	.05	.05
8.70	9.85	.51	.65	.05	.05
8.55	9.70	.51	.65	.05	.05
8.85	10.00	.51	.65	.05	.05
9.15	10.30	.51	.65	.05	.05

TUNNEL LABORERS  
(Statewide except Clark, Emerald and Lincoln Cos., & the S 1/2 of Nye County)

SWAMPER; Bull Gang, Muckers, Trackmen; Dumpman; Concrete Crew - includes rodding and spreading; Grout Crew incl. Headerman and Potman; Reboundmen

NIPPER; Chuck Tenders and Cable Tenders; Powderman - Primer House; Steel Form Raisers and Setters; Vibrators, Pavement Breakers

GROUT GUNMEN; Jetgunmen; Gunmen

MINERS-Tunnel, incl. Top and Bottom Man on Shaft and Raise Work; Timbermen, Retimberman - Wood or Steel or substitute materials therefor; Blasters, Drillers, powdermen - in heading; Cherry Pickerman - where car is lifted; Nozzleman on slick line; Sand Blaster - Potman (work assignment interchangeable)

SHAFT WORK & RAISE (below actual or excavated ground level); Diamond Driller; Gunnite Nozzlemen; Rodmen, Groundmen

SHIFTERS

SHAFT WORK & Raise-Shifters

Basic Hourly Rates	Fringe Benefits Payments			
	H & W	Pensions	Vacation	Education and/or Appr. Tr.
8.50	.50	.65		.10
8.60	.50	.65		.10
8.75	.50	.65		.10
8.80	.50	.65		.10
9.10	.50	.65		.10
9.35	.50	.65		.10
9.65	.50	.65		.10

SUPERSEDES DECISION

STATE: South Carolina  
 COUNTY: Cherokee, Spartanburg  
 and Union.  
 DECISION NUMBER: SC76-1100  
 DATE: Date of Publication  
 Supersedes Decision No.: SC75-1017 dated January 31, 1975 in 40 FR-4785.  
 DESCRIPTION OF WORK: Residential construction consisting of single family homes  
 and garden type apartments up to and including 4 stories.

	Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
		H & W	Pensions	Vacation	
Air conditioning mechanic	5.25				
Bricklayers	5.75				
Carpet layers	3.25				
Carpenters	4.00				
Cement masons	4.25				
Dry wall finishers	5.00				
Dry wall hangers	5.00				
Electricians	4.50				
Insulation installer	3.20				
Ironworkers	3.50				
Laborers:					
Laborers	2.91				
Asphalt Raker	3.00				
Painters, brush	4.00				
Plumbers	4.75				
Roofers	3.80				
Sheet metal workers	4.75				
Soft floor layers	3.25				
Tile setters	5.30				
Truck drivers	3.00				
Welders	4.67				
POWER EQUIPMENT OPERATORS:					
Asphalt distributor	3.70				
Asphalt finisher	3.75				
Asphalt paver	3.28				
Asphalt sweeper	3.00				
Backhoe	3.82				
Bulldozer	4.75				
Dragline	3.70				
Front end loader	3.30				
Motor grader	3.30				
Pan operator	3.70				
Roller	3.25				
Scraper	3.23				
Tractor	3.75				
Trenching machine	4.75				

DECISION NO. UT76-5082

SUPERSEDEAS DECISION

COUNTIES: Statewide  
DATE: Date of Publication

STATE: Utah  
DECISION NUMBER: UT76-5082  
Supersedes Decision No. UT76-5052 dated June 23, 1976, in 41 FR 26337.  
DESCRIPTION OF WORK: Building construction (excluding single family homes and garden type apartments up to and including 4 stories), heavy and highway construction.

	Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
		H & W	Pensions	Vocation		
ASBESTOS WORKERS	\$9.99	.52	\$1.02	.50		.02
BOILERMAKERS	10.65	.75	1.00			.07
BRICKLAYERS	9.76	.40	.42			.03
CARPENTERS	9.00	.50	.60	.25		.03
Saw Operators, Carpenters handling crosote materials	9.25	.50	.60	.25		.03
Millwrights	9.50	.50	.60	.25		.03
CEMENT MASONS:	8.76	.50	.60	.25		
Cement Masons						
Machine Operator; Mastic Floor Materials; Swing Scaffold; Swing Stage	8.885	.50	.60	.25		
DRYWALL INSTALLERS:	9.54	.51	.30			.03
Taping, finishing and texturing (hand or machine)						
ELECTRICIANS:						
North section of Utah (Box Elder, Cache, Davis County (north of 41st Parallel), Morgan, Rich, Weber Counties:						
Zone 1: Ciche, Davis County (north of 41st Parallel), Weber Counties:	10.50	.45	1% + .50			8/10%
Electricians	10.75	.45	1% + .50			8/10%
Cable Splicers						
Zone 2: Box Elder (east of 112.5° longitude), Morgan Counties:	11.00	.45	1% + .50			8/10%
Electricians	11.25	.45	1% + .50			8/10%
Cable Splicers						
Zone 3: Box Elder (west of 112.5° longitude), Rich Counties:	12.50	.45	1% + .50			8/10%
Electricians	12.75	.45	1% + .50			8/10%
Cable Splicers						
In the above areas on any job or project not exceeding \$5,000 electrical, labor and material including, Zone 1 rates shall apply.						

ELECTRICIANS (Cont'd):  
South section of Utah (Remaining Counties):  
Zone 1: Davis County, south of 41st Parallel; Salt Lake County; Utah County (north of 40th Parallel); the north east corner of Tooele County (beginning at a point where the township line between Township 3 south and Township 4 south, Salt Lake Base Meridian, intersects the east boundary line of Tooele and thence west along said township line to the southwest corner of Section 32, Township 3 south, Range 4 west, Salt Lake Base Meridian; thence north to the north-west corner of Section 17 of Township 3 south, Range 4 west, then west to longitude 112.5°; thence north along the line of longitude 112.5° to the north line of Tooele County):  
Area A: Ten miles either direction (east or west) from Interstate Hwy. #15, bounded on the north by the 41st Parallel and on the south by the 40th Parallel:  
Electricians  
Cable Splicers  
Area B: The balance of Zone 1 that lies in Davis, Salt Lake and Utah Counties:  
Electricians  
Cable Splicers  
Area C: The balance of Zone 1 that lies in Tooele County:  
Electricians  
Cable Splicers

	Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
		H & W	Pensions	Vocation	
	\$10.50	.45	1% + .50		8/10%
	10.75	.45	1% + .50		8/10%
	11.25	.45	1% + .50		8/10%
	11.50	.45	1% + .50		8/10%
	12.00	.45	1% + .50		8/10%
	12.25	.45	1% + .50		8/10%

	Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
		H & W	Pensions	Vacation		
<b>ELECTRICIANS (Cont'd):</b> South section of Utah (Remaining Counties) (Cont'd): Zone 2: Remainder of Counties and all portions of Counties not included in Zones 1 and 2 of south section of Utah: Electricians Cable Splicers	\$13.25 13.50 10.03 7.02	.45 .45 .545 .545	1% + .50 1% + .50 .35 .35	.50 .50 3% + a 3% + a	8/10% 8/10% .02 .02	
<b>ELEVATOR CONSTRUCTORS' HELPERS</b> <b>ELEVATOR CONSTRUCTORS' HELPERS (PROB.)</b>	5.015 10.02	.51	.20			
<b>IRONWORKERS:</b> Ornamental, Reinforcing, Fence Erectors, Structural	10.05 8.88 9.40	.55 .50 .20	1.00 .50		.10 .01	
<b>LATHES</b> <b>MARBLE SETTERS</b>						
<b>PAINTERS:</b> Area north of the 41st Parallel: Brush; Roller Spray; Sandblast; Steeple Jack Spray (Swing Stage); Sandblaster (Swing Stage)	8.19 8.44 8.64	.51 .51 .51	.50 .50 .50		.03 .03 .03	
Remaining part of State: Brush; Roller Brush (Swing Stage); Brush (Steel and Bridge); Spray, Sandblaster; Steeple Jack Spray (Swing Stage); Spray blaster (Swing Stage); Sandblaster (Swing Stage) Wallcovering hanger	8.57 8.87	.21 .21	.18 .18		.02 .02	
<b>FILEDRIVERS:</b> Bridge, Wharf and Dock Carpenters; Riggers, Boom men	11.38 8.86	.50 .50	.60 .60	.25	.03 .01	
<b>PLASTERERS:</b> <b>PLUMBERS:</b> Pipefitters: Zone 1: Within a 15 mile radius from the center of each City, namely Salt Lake City, Ogden and Provo, Utah Zone 2: Zone 1 plus 15 miles	9.40 9.70	.51 .51	1.00 1.00		.04 .04	

	Basic Hourly Rates	Fringe Benefits Payments				Education and/or Appr. Tr.
		H & W	Pensions	Vacation		
<b>PLUMBERS: Pipefitters (Cont'd):</b> Zone 3: Zone 2 plus 15 miles Zone 4: Zone 3 plus 35 miles Zone 5: All areas beyond Zone 4	\$10.05 11.40 11.90	.51 .51 .51	\$1.00 1.00 1.00		.04 .04 .04	
<b>REFRIGERATION AND AIR CONDITIONING:</b> Under 50 tons 50 tons and over	8.55 9.15 9.06	.51 .51 .57	.75 .75 .35		.04 .04	
<b>ROOFERS</b> <b>SHEET METAL WORKERS</b> <b>SOFT FLOOR LAYERS</b> <b>SPRINKLER FITTERS</b> <b>TERRAZZO WORKERS</b>	9.83 8.28 10.43 9.40 9.40	.50 .51 .60 .20 .20	.54 .12 .90		.08 .08	
<b>TILE SETTERS</b> WELDERS: Receive rate prescribed for craft performing operation to which welding is incidental.						
<b>PAID HOLIDAYS:</b> A-New Year's Day; B-Memorial Day; C-Independence Day; D-Labor Day; E-Thanksgiving Day; F-Christmas Day.						
<b>FOOTNOTE:</b> a. Employer contributes 4% of basic hourly rate for 5 years' service and 2% basic hourly rate for 6 months to 5 years' service as Vacation Pay Credit. 6 Paid Holidays.						

LABORERS

Group 1: Boxman; Carpenter Tender; Cement Finisher Helper; Chat Boxman; Choker Setter; Clearing and Grading; Cleaning of equipment and parts in connection with concrete; Concrete Crew; Dock-hand and Cleaning Man; Fence Erector and Installer (includes installation and erection of fences, guard rails, median rails, reference post, guide post, and right-of-way markers); Flagman; Form Stripper; Gardener Helper; General Laborer; Grizzley Operator (whether by power or hand); Group Pump Operator; Heater Tender; Helpers (all not herein separately classified); House Movers; Landscaping Helper; Laborers on Wrecking and Demolition; Nurseryman Helper; Prewaterman; Riprap man (hand placed); Sloper, Spreader and Weighman; Stake Jumper; Stripping and Cleaning of steel and pans; Tool Dispatcher and Checker (full time); Unloading and packing of reinforcing steel rods and mesh

Group 2: Air-track Helper; Asphalt Rakers and Ironers; Dumpman; Gunnite Reboundman; Metal Form Setter (airport paving and highway); Pipe Wrapper; Pot Tender and Joint Maker; Rollers; Screen and Clean-up Man; Signal and Dumpman on Concrete Construction; Tunnel and Belt Man

Group 3: Barko Vibratory Roller and similar type compacting machines; Concrete Cutting Torch; Hand and Chain Saw Operator (Bucking and Felling Timbers); High Pressure Water Nozzleman; J Tamperers and similar type tamperers; Jackhammer and Pavement Breaker; Mortar and Grout Mixer; Multi-plate Installer; Operator of pneumatic and electric tools and compressors and concrete saw; Operator of Power-type Form Cleaner and Oiling Machine; Pipe-layer; Powderman Helper; Power Type Buggies; Pumpcrete Operator; Refinery Tank and Vessel Cleaners; Sandblasters; Sandblaster Pot Tender; Vibrator Operator; Work of all type using Cutting Torches and tools needed in wreckings; Laser Beam Operator

Group 4: Air-track and Core Diamond Drillers; Drill Mechanic (on job site); High Scaler operating Jackhammer Breaker; Main Vibrators and similar types 70 lbs.; Multiple Side Boom Driller; Wagon Driller

Group 5: Gunnite Groundman; Gunnite Nozzleman; Gunnite Rodman

Group 6: Powderman

LABORERS (Tunnel and Shaft Work)

Group 1: Underground Laborers

Group 2: Brakeman; Chucktender; Dumpman; Powderman Helper; Puddler

Group 3: Nipper; Screedman; Vibrator; Tapman

Group 4: Cutting Machine Operator; Drill Doctor Finisher; Gunnite Gunman; Miners; Powder Make-up Man; Spader and Tuggers; Steelman; Timberman

Group 5: Gunnite Groundman; Gunnite Nozzleman; Gunnite Rodman

Group 6: Shifter

	Basic Hourly Rates		H & W	Fringe Benefits Payments			Education and/or Appr. Tr.
	AREA 1	AREA 2		Pensions	Vacation		
LABORERS*:							
Group 1	\$6.455	\$7.455	.30	.35	.30	.04	.04
Group 2	6.58	7.58	.30	.35	.30	.04	.04
Group 3	6.705	7.705	.30	.35	.30	.04	.04
Group 4	6.83	7.83	.30	.35	.30	.04	.04
Group 5	7.18	8.18	.30	.35	.30	.04	.04
Group 6	7.68	8.68	.30	.35	.30	.04	.04
LABORERS (Tunnel and Shaft Work):							
Group 1	6.58	7.58	.30	.35	.30	.04	.04
Group 2	6.68	7.68	.30	.35	.30	.04	.04
Group 3	6.78	7.78	.30	.35	.30	.04	.04
Group 4	6.88	7.88	.30	.35	.30	.04	.04
Group 5	7.18	8.18	.30	.35	.30	.04	.04
Group 6	7.33	8.33	.30	.35	.30	.04	.04
LINE CONSTRUCTION WORKERS							
Linemen		9.65	.35	1%			3/4%
Cable Splicers		10.61	.35	1%			3/4%
Line Equipment Operators		8.70	.35	1%			3/4%
Groundman		7.19	.35	1%			3/4%
Line Equipment Mechanic:							
Right-of-way		9.14	.35	1%			3/4%
Base shop		8.56	.35	1%			3/4%
Line Equipment Servicemen		8.56	.35	1%			3/4%
LABORERS - AREA DEFINITION:							
Area 1: That area of Utah within 45 road miles of the County seats excluding Daggett County.							
Area 2: That area in Utah beyond 45 miles of the County seats including Daggett County.							

POWER EQUIPMENT OPERATORS

Group 1: Repairman Helper

Group 2: Asphalt Plant Fireman; Brakeman - Locomotive; Elevator Operator; Oilier, Boxman; Rear Chainman; Fireman Hydraulic Monitor; Material Loader or Conveyor; Partsmen - Field; Rodmen; Chainmen

Group 3: Air Compressor Operator; Concrete Mixer Operator (skip type); Concrete Pump or Pumcrete Gun Operator; Engineer, Dinkey Operator; Generator (100 KW or over); Mixer Box Operator (Concrete or Asphalt Plant)(continuous mix or similar); Pump Operator; Self-propelled, automatically applied concrete curing machine (on streets, highways, airports and canals); Screedman; Truck Crane Oiler; Boxman, Asphalt Plant

Group 4: Ballast Jack Tamper; Ballast Regulator; Ballast Tamper - Multiple Purpose; Front End Loader up to and including 1 cu. yd. Struck WRC; Hoist Operator 1 Drum; Line Master; Slip Form Pumps; Gradesetter

Group 4-A: Slurry Seal Machine or similar

Group 5: Air Compressor Operator (two or more Compressors); Batch Operator (Asphalt Plant); Motorman; Pavement Breaker Operator (Emasco and similar type); Signalman; Shuttlecar; Small Rubber Tired Tractors; Small Self-propelled Pneumatic Rollers; Towermobile Operator; Welding Machine (2 or more); Lube and Service Engineer (mobile and grease rack); Concrete Conveyor (Building Site); Slurry Seal Machine or similar

Group 6: A-Frame Truck and Tugger Hoist; Concrete Saws (self-propelled unit on streets, highways, airports and canals); Engineer, Locomotive; Fork Lift (construction job site); Kolman Loader (and similar); Maginnis Internal Full Slab Vibrator (on airports, highways, canals and warehouses); Mixermobile Operator; Pipe Bending Machine Operator; Pipe Cleaning Machine; Pipe Wrapping Machine; Road Mixing Machine Operator; Ross Carrier, or similar type; Small Rubber Tired Tractor (with attachments, including backhoe); Small Tractor with Boom; Surface Heater (self-propelled); Loader Operator (over 1 cu. yd. up to and including 2 cu. yd. struck WRC); Power Jumbo Operator (setting slip forms, etc., in tunnels); Small Rubber Tired Trenching Machine

Group 7: Bridge Crane; Chip Box Spreader (Flaherty type and similar); Concrete Mixer Operator (paving or batch plant); Deck Engineers (Marine); Drilling Machine Operator (well or diamond); Dual Drum Mixers; Elevating Grader Operator; Fuller Kenyon Pump and similar types; Heavy Duty Rotary Drill Rigs (such as Quarry Master, Joy Drills or equal); Hoist Operator - 2 drums; Instrument Man; Mechanical Finisher Operator (Asphalt or concrete); Mine or Shaft Hoist; Pavement Breaker (Pavement Breaker with compressor combination); Pavement Breaker, truck mounted, compressor combination; Refrigeration Plant; Self-propelled Pipeline, Wrapping Machine Perault, CRC, or similar types); Slusher Operator; Tractor Operator (Sheep's foot and compacting equipment); Trenching Machine; Tractor - Compressor Drill Combination; No-Joint Pipe Laying Machine; Lull High Lift (40 ft. or similar); Roller Operator or self-propelled compactor; Concrete conveyor or concrete pump truck, or equipment mounted (Boom length to apply).

	Basic Hourly Rates		H & W	Fringe Benefits Payments			Education and/or Appr. Tr.
	AREA 1	AREA 2		Pensions	Vacation		
<b>POWER EQUIPMENT OPERATORS:</b>							
Group 1	\$7.31	\$8.31	.69	\$1.475.	.75	.10	
Group 2	7.59	8.59	.69	1.475	.75	.10	
Group 3	7.94	8.94	.69	1.475	.75	.10	
Group 4	8.12	9.12	.69	1.475	.75	.10	
Group 4-A	8.23	9.23	.69	1.475	.75	.10	
Group 5	8.23	9.23	.69	1.475	.75	.10	
Group 6	8.69	9.69	.69	1.475	.75	.10	
Group 7	8.84	9.84	.69	1.475	.75	.10	
Group 7-A	8.95	9.95	.69	1.475	.75	.10	
Group 8	9.25	10.25	.69	1.475	.75	.10	
Group 8-A	9.31	10.31	.69	1.475	.75	.10	
Group 9	9.37	10.37	.69	1.475	.75	.10	
Group 10	9.53	10.53	.69	1.475	.75	.10	
Group 11	9.97	10.97	.69	1.475	.75	.10	
Group 11-A	10.93	11.93	.69	1.475	.75	.10	
Group 11-B	11.38	12.38	.69	1.475	.75	.10	
Group 12	11.54	12.54	.69	1.475	.75	.10	
<b>POWER EQUIPMENT OPERATORS:</b>							
<b>PILEDRIVING:</b>							
Group 1-A	8.38		.69	1.475	.75	.10	
Group 1-B	8.71		.69	1.475	.75	.10	
Group 1-C	8.66		.69	1.475	.75	.10	
Group 2-A	9.49		.69	1.475	.75	.10	
Group 2-B	9.70		.69	1.475	.75	.10	
Group 3	10.00		.69	1.475	.75	.10	
Group 3-A	10.38		.69	1.475	.75	.10	
Group 4	10.93		.69	1.475	.75	.10	
Group 5	11.08		.69	1.475	.75	.10	
Group 6	12.09		.69	1.475	.75	.10	
<b>STEEL ERECTION:</b>							
Group 1	8.82		.69	1.475	.75	.10	
Group 2	9.20		.69	1.475	.75	.10	
Group 3	10.21		.69	1.475	.75	.10	
Group 4	10.35		.69	1.475	.75	.10	
Group 4-A	10.64		.69	1.475	.75	.10	
Group 5	11.12		.69	1.475	.75	.10	
Group 6	11.53		.69	1.475	.75	.10	
Group 6-A	12.09		.69	1.475	.75	.10	
Group 7	13.07		.69	1.475	.75	.10	

DECISION NO. UT76-5082

POWER EQUIPMENT OPERATORS (Cont'd)

- Group 7: (Cont'd)  
mechanical burm, curb and/or curb gutter machine (concrete or asphalt), self-propelled compactor with or without dozer, drilling and boring machinery, horizontal and vertical (not to apply to waterliners, wagon drills or Jackhammers), self-propelled compactor (with multiple-propulsion power units)
- Group 7-A: Side Boom Operator; Asphalt Plant Engineer; Engineer Crushing Plant; Tractor Operator (Bulldozer, Scraper or Drag-Type Shovel or Boom attachment) (up to and including D-7 or similar), Truck or equipment mounted
- Group 8: Do-more Loader and Adams Elegrader; Euclid Loader and similar types; Chicago Boom (including Stiff Leg and Sheer Pole); Chief of Party; Combination Slusher and Motor Operator; Concrete Batch Plant (Multiple unit); Koehring Scooper (or similar, up to 5 cu. yds. Struck MRC); Mucking Machine Operator; Saurman Type Dragline (under 5 cu. yds. Struck MRC); Self-propelled Elevating Grade Plane; Soil Stabilizer (P & H or equal); Subgrader (Automatic Subgrader - fine - grader); Self-propelled Boom Type Lifting Device; Mechanical Trench Shield; Rubber-tired Scraper (under 35 cu. yds. Struck MRC); Tri-Batch Paver; Tunnel (Mole or similar), Combination Backhoe and Loader (3/4 yards or over Struck MRC)
- Group 8-A: Heavy Duty Repairman or Welder; Tractor Operator Bulldozer, Scraper or Drag Type Shovel or Boom Attachment Larger than D-7 or similar
- Group 9: Combination Mixer and Compressor (Cunnite); Highline Cableway Signalman; Motor Patrol; Tower Crane (Linden type or similar design and capacity) (In the erection, dismantling and moving of equipment there shall be additional Operator Engineer)
- Group 10: Highline Cableway Operator (Signalman required); Lift Shab Machine (Vagborg and similar types); Locomotive (over 100 tons) (single or multiple units); Pre-stree Wire Wrapping Machine; Saurman type Dragline (5 cu. yds. Struck MRC and over); Tractor Tandem Scrapers - DW 10, 20, etc. (Tandem Scraper); Universal Equipment Operator (Shovel, Backhoe, Dragline, Derrick, Derrick Barge, Clamshell, Crane, Gradedall, etc.) (up to and including 5 cu. yds. Struck MRC); Loader (over 5 cu. yds. up to and including 12 cu. yds. Struck MRC); Self-propelled Boom type Lifting Device (center mount) (over 10 tons)
- Group 11: Automatic Concrete Slip Form Paver (Gradesetter, Sreedman); Koehring Scooper (or similar) (5 cu. yds. and over Struck MRC); Multiple Propulsion Power Unit Earth Movers (up to and including 75 cu. yds. Struck MRC); Remote Controlled Cranes and Derricks; Power Equipment with Shovel-type controls (over 5 cu. yds. up to and including 7 cu. yds. Struck MRC); Rubber-tired Scraper (35 cu. yds. and over Struck MRC); Self-propelled Compactor (with multiple propulsion power units); Slip Form Paver (concrete or asphalt) (1 operator and 2 screedmen when required); Tandem Tractors; Tower Crane's Mobile

DECISION NO. UT76-5082

POWER EQUIPMENT OPERATORS (Cont'd)

- Group 11-A: Multi-Purpose Earth Moving Machines (two or more scrapers) (over 75 cu. yds. Struck MRC); Power Shovels and Draglines (over 7 cu. yds. Struck MRC); Loader (over 12 cu. yds. Struck MRC)
- Group 11-B: Operator of Helicopter (when used in erection work); Loader (18 cu. yds. and over)
- Group 12: Cranes over 125 tons.
- POWER EQUIPMENT OPERATORS  
(Piledriving)
- Group 1-A: Assistant to Engineer (Fireman, Oiler, Deckhand)
- Group 1-B: Compressor Operator
- Group 1-C: Truck Crane Oiler
- Group 2-A: Operator of Tugger Hoist (hoisting materials only)
- Group 2-B: Compressor Operator (over 2); Welding Machine Operator (powered other than by electricity)
- Group 3: "A" Frames; Deck Engineer; Fork Lift Operator; Self-propelled Boom Type Lifting Device (center mount) (10 ton capacity or less MRC)
- Group 3-A: Heavy Duty Repairman and/or Welder
- Group 4: Operating Engineer in lieu of Assistant to Engineer tending boiler or compressor attached to Crane Piledriver; Operator of Piledriving Rigs, Skid or Floating and Derrick Barges; Operator of Diesel or gasoline powered Crane Piledriver (without boiler) up to and including 1 cu. yd. rating; Truck Crane Operator (up to and including 25 tons) (hoisting material only); Self-propelled boom type lifting device (center mount) (over 10 tons)
- Group 5: Operator of diesel or gasoline powered crane piledriver (without boiler) over 1 cu. yd. rating; Operator of Crane (with steam flash boiler, pump or compressor attached), (Group 4 Operating Engineer required); Operator of steam powered Crawler or Universal type Driver (Raymond or similar type); Truck Crane Operator (over 25 tons), (Hoisting material or performing Piledriving work)
- Group 6: Cranes (over 125 tons)
- POWER EQUIPMENT OPERATORS  
(Steel Fraction)
- Group 1: Assistant to Engineer (Oiler)

DECISION NO. UT76-5082

TRUCK DRIVERS

	Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
		H & W	Pensions	Vacation	
DUMP TRUCKS - Water Level Capacity (Bottom, end and side) (including Dumpster Trucks, Euclid Type Trucks, Turnawagons, Turnarockers and Dumpcrete) Less than 8 yards 8 yards and less than 14 yards 14 yards and less than 35 yards 35 yards and less than 55 yards 55 yards and less than 75 yards 75 yards and less than 95 yards 95 yards and less than 105 yards 105 yards and less than 130 yards All over 130 cu. yds. to be paid one-half cent (\$.005) per cu. yds. capacity per hour in addition to rate for 105 yards and less than 130 yards	AREA I \$7.60	.54	.65	.82	.10
	8.75	.54	.65	.82	.10
	7.90	.54	.65	.82	.10
	8.10	.54	.65	.82	.10
	8.30	.54	.65	.82	.10
	8.50	.54	.65	.82	.10
	8.70	.54	.65	.82	.10
	8.82	.54	.65	.82	.10
	AREA II \$8.60				
	8.75				
FLAT RACK TRUCKS, BULK Cement Trucks, Transport Trucks, Semi-trailer (carrying capacity); Pickup Less than 10 tons 10 tons and less than 15 tons 15 tons and less than 20 tons 20 tons and over TRANSIT MIX TRUCKS: 4-½ yards capacity and less Over 4½ yards capacity to and including 6½ yards Over 6½ yards Concrete Pumping Trucks	7.425	.54	.65	.82	.10
	7.50	.54	.65	.82	.10
	7.65	.54	.65	.82	.10
	7.75	.54	.65	.82	.10
	7.90	.54	.65	.82	.10
	8.425				
	8.50				
	8.65				
	8.75				
	8.90				

DECISION NO. UT76-5082

POWER EQUIPMENT OPERATORS  
(Steel Erection) (Cont'd)

- Group 2: Assistant to Engineer (Truck Crane Oiler); Compressor; Generator, gasoline or diesel driver (100 KW); Rodman; Chairman
- Group 3: Compressors, Generators and/or Welding Machines or Combination (2 to 6); Deck Engineer; Instrument Man; Signalman (using Mechanical equipment); Fork Lift
- Group 4: Heavy Duty Repairman; Tractor Operator
- Group 4-A: Combination Heavy Duty Repairman; Welder
- Group 5: Dual Purpose "A" Frame or Boom Truck; Boom Cat; Chicago Boom; Crawler Cranes and Truck Cranes (15 tons MRC or less); Single Drum Hoist; Tugger Hoist; Chief of Party; Self-propelled Boom type Lifting device (center mount) (10 ton capacity or less MRC)
- Group 6: Crawler Cranes and Truck Cranes (over 15 tons MRC); Derricks (2 Operators required when swing engine remote from hoist); Highline Cableway (signalman required); Gantry Rider (or similar equipment); Self-propelled Boom type lifting device (center mount over 10 tons); Tower Cranes Mobile (including rail mounted); Universal Liebherr and Tower Cranes (and similar types in erection, dismantling and moving of equipment there shall be an additional Operating Engineer); Two or more drum hoist

DECISION NO. UT76-5082

AREA DEFINITIONS  
Power Equipment Operators and Truck Drivers

AREA 1: All areas included in the description defined below which is based upon township and range-lines as referenced to the Salt Lake City Base and Meridian:

Commencing at the intersection of the Utah-Nevada border and the northerly line of township 36S, thence easterly along the northerly lines of township 36S to the northeast corner of township 36S, range 17W;  
 Thence northerly to the N.W. corner of township 35S, range 16W;  
 Thence easterly to the N.E. corner of township 35S, range 16W;  
 Thence northerly to the N.W. corner of township 31S, range 15W;  
 Thence easterly to the N.E. corner of township 31S, range 15W;  
 Thence northerly to the N.W. corner of township 26S, range 14W;  
 Thence easterly to the N.E. corner of township 26S, range 14W;  
 Thence northerly to the N.W. corner of township 25S, range 13W;  
 Thence easterly to the N.E. corner of township 25S, range 13W;  
 Thence northerly to the N.W. corner of township 24S, range 12W;  
 Thence easterly to the N.E. corner of township 24S, range 12W;  
 Thence northerly to the N.W. corner of township 19S, range 11W;  
 Thence easterly to the N.E. corner of township 19S, range 11W;  
 Thence northerly to the N.W. corner of township 17S, range 10W;  
 Thence easterly to the N.E. corner of township 17S, range 10W;  
 Thence northerly to the N.W. corner of township 16S, range 9W;  
 Thence easterly to the N.E. corner of township 16S, range 9W;  
 Thence northerly to the N.W. corner of township 15S, range 8W;  
 Thence easterly to the N.E. corner of township 15S, range 8W;  
 Thence northerly to the S.W. corner of township 7S, range 7W;  
 Thence westerly to the S.W. corner of township 7S, range 10W;  
 Thence northerly crossing the Salt Lake Base Line to the N.W. corner of township 6N, range 10W;  
 Thence easterly to the N.W. corner of township 6N, range 8W;  
 Thence northerly to the N.E. corner of township 12N, range 8W;  
 Thence easterly to the N.E. corner of township 12N, range 8W;  
 Thence northerly along the westerly line of range 7W to the Utah-Idaho Border  
 Thence easterly along the Utah-Idaho Border crossing the Salt Lake Meridian to the intersection of the Utah-Idaho-Wyoming Borders  
 Thence southerly along the Utah-Wyoming Border  
 Thence easterly along the Utah-Wyoming Border to the easterly line of range 11E;  
 Thence southerly along the east line of range 11E, crossing the Salt Lake Base line to the N.E. corner of township 4S, range 11E;  
 Thence easterly to the N.W. corner of township 4S, range 18E;  
 Thence northerly to the N.W. corner of township 1S, range 18E;  
 Thence easterly along the Salt Lake Base Line to the N.E. corner of township 1S, range 24E;

DECISION NO. UT76-5082

TRUCK DRIVERS (Cont'd)

WATER, FUEL AND OIL TANK TRUCKS:  
 0 to 1200 gallons  
 1200 gallons to 2500 gallons  
 2500 gallons to 4000 gallons  
 4000 gallons to 6000 gallons  
 6000 gallons to less than 10,000 gallons  
 10,000 gallons to less than 15,000 gallons  
 15,000 gallons to less than 20,000 gallons  
 20,000 gallons to less than 25,000 gallons  
 25,000 gallons to less than 30,000 gallons  
 Over 30,000 gallons

DIL SPREADER OPERATOR (on single man operation where Boot Man is not required)

CONSTRUCTION JOB SERVICEMEN:

Telescopic Manlift Truck  
 Fork Lift (under 6 tons) and Straddle Truck  
 Truck Driver Helper  
 Chauffeurs  
 Bunkers and Truck Loaders  
 Warehousemen (Counter Clerk)  
 Warehousemen  
 Washers, Greasers and Tiremen  
 Gas Station Attendants  
 Fork Lift (over 6 tons)  
 Teamster Mechanic  
 Teamster Mechanic Helper  
 Teamster Welder  
 Teamster Driving Two Horses  
 Teamster Driving Three or more Horses  
 Sweeper or Vacuum Truck

Basic Hourly Rates	Basic Hourly Rates	Fringe Benefits Payments			Education/ Appr. Tr.
		H & W	Pensions	Vacation	
AREA I	AREA II				
\$7.475	8.475	.54	.65	.82	.10
7.60	8.60	.54	.65	.82	.10
7.75	8.75	.54	.65	.82	.10
8.05	9.05	.54	.65	.82	.10
8.30	9.30	.54	.65	.82	.10
8.55	9.55	.54	.65	.82	.10
8.80	9.80	.54	.65	.82	.10
9.05	10.05	.54	.65	.82	.10
9.30	10.30	.54	.65	.82	.10
8.39	9.30	.54	.65	.82	.10
7.80	8.80	.54	.65	.82	.10
7.80	8.80	.54	.65	.82	.10
7.375	8.375	.54	.65	.82	.10
7.375	8.375	.54	.65	.82	.10
7.50	8.50	.54	.65	.82	.10
7.55	8.55	.54	.65	.82	.10
7.425	8.425	.54	.65	.82	.10
7.575	8.575	.54	.65	.82	.10
7.425	8.425	.54	.65	.82	.10
7.90	8.90	.54	.65	.82	.10
8.61	9.61	.54	.65	.82	.10
8.36	9.36	.54	.65	.82	.10
8.61	9.61	.54	.65	.82	.10
8.375	9.375	.54	.65	.82	.10
8.475	9.475	.54	.65	.82	.10
7.75	8.75	.54	.65	.82	.10

DECISION NO. UT76-5082

AREA DEFINITIONS  
Power Equipment and Truck Drivers

## AREA 1: (Cont'd)

Thence southerly to the N.E. corner of township 3S, range 24E;  
Thence easterly along the northern line of township 3S to the  
Utah-Colorado Border;  
Thence southerly along the Utah-Colorado Border, to the Southerly  
line of township 6S;  
Thence westerly to the N.E. corner of township 7S, range 23E;  
Thence southerly to the S.E. corner of township 7S, range 23E;  
Thence westerly to the S.W. corner of township 7S, range 20E;  
Thence southerly to the S.E. corner of township 8S, range 19E;  
Thence westerly to the S.E. corner of township 8S, range 16E;  
Thence southerly to the S.E. corner of township 11S, range 16E;  
Thence westerly to the S.E. corner of township 11S, range 14E;  
Thence southerly to the S.E. corner of township 16S, range 14E;  
Thence westerly to the S.E. corner of township 16S, range 12E;  
Thence southerly to the S.E. corner of township 20S, range 12E;  
Thence westerly to the S.E. corner of township 20S, range 8E;  
Thence southerly to the S.E. corner of township 21S, range 8E;  
Thence westerly to the S.E. corner of township 21S, range 6E;  
Thence southerly to the S.E. corner of township 23S, range 6E;  
Thence westerly to the S.E. corner of township 23S, range 5E;  
Thence southerly to the N.E. corner of township 27S, range 5E;  
Thence easterly to the N.E. corner of township 27S, range 7E;  
Thence southerly to the S.E. corner of township 30S, range 7E;  
Thence westerly to the S.E. corner of township 30S, range 4E;  
Thence southerly to the S.E. corner of township 31S, range 4E;  
Thence westerly to the S.W. corner of township 31S, range 4E;  
Thence southerly to the S.E. corner of township 35S, range 3E;  
Thence westerly to the S.W. corner of township 35S, range 3E;  
Thence southerly to the S.E. corner of township 37S, range 2E;  
Thence westerly to the S.W. corner of township 37S, range 2E;  
Thence southerly to the S.E. corner of township 39S, range 1E;  
Thence westerly crossing the Salt Lake Meridian to the S.E.  
corner of township 39S, range 2W;  
Thence southerly to the S.E. corner of township 41S, range 2W;  
Thence westerly to the S.E. corner of township 41S, range 4W;  
Thence southerly along the easterly line of range 4W, to the  
Utah-Arizona Border;  
Thence westerly along the Utah-Arizona Border to the S.W. corner  
of Utah;  
Thence northerly along the Utah-Nevada Border to the Point of  
beginning;  
Commencing at the intersection of the Utah-Colorado Border and  
the southerly line of township 34S;  
Thence westerly to the S.W. corner of township 34S, range 21E;

AREA DEFINITIONS (Cont'd)  
Power Equipment Operators and Truck Drivers (Cont'd)

## AREA 1 (Cont'd):

Thence northerly to the S.W. corner of township 29S, range 21E;  
Thence westerly to the S.W. corner of township 29S, range 19E;  
Thence northerly to the N.W. corner of township 23S, range 19E;  
Thence easterly to the N.W. corner of township 23S, range 22E;  
Thence northerly to the N.W. corner of township 21S, range 22E;  
Thence easterly to the N.E. corner of township 21S, range 24E.

## AREA 2:

All areas not included within Area 1 as defined above.

SUPERSEDES DECISION

STATE: VIRGINIA  
DECISION NO.: VA76-3245

COUNTIES: Alleghany, Austin, Bath, Clarke, Frederick, Highland, Page, Rockbridge, Shenandoah & Warren

Supersedes Decision No. AM-1875, dated August 20, 1971, in 36 FR 16343.

DESCRIPTION OF WORK: Highway Construction

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 3.35				
3.36				
3.00				
4.00				
3.55				
3.50				
3.00				
4.00				
3.00				
2.30				
7.00				
4.25				
3.79				
3.25				
3.50				
4.00				
4.86				
3.39				
3.37				
3.00				
3.50				
3.50				
4.52				
4.00				
4.25				
4.25				
4.54				
3.50				
3.50				
3.95				
4.86				
4.25				
3.75				
3.00				
3.25				
4.00				
4.25				
3.00				

SUPERSEDES DECISION

STATE: VIRGINIA  
DECISION NO.: VA76-3244

COUNTIES: Albemarle, Culpeper, Fauquier, Fluvanna, Greene Loudoun, Louisa, Madison, Orange, Prince William & Rappahannock

Supersedes Decision No. AM-1874, dated August 20, 1971, in 36 FR 16342.

DESCRIPTION OF WORK: Highway Construction

Basic Hourly Rates	Fringe Benefits Payments			Education and/or Appr. Tr.
	H & W	Pensions	Vacation	
\$ 3.88				
4.28				
3.49				
4.38				
3.75				
6.29				
5.50				
3.90				
4.75				
3.09				
2.50				
4.52				
3.00				
6.00				
3.83				
5.75				
3.25				
3.58				
4.00				
3.00				
4.12				
4.00				
4.00				
4.32				
5.16				
4.00				
5.50				
4.66				
3.65				
3.77				
4.64				
3.75				

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